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September 30, 2008

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Hand Delivery

ATTN: Phillis Johnson-Ball
Environmental Filing
STB Finance Docket No. 35087

Surface Transportation Board
395 E Street, S.W.
Washington, D.C. 20423-0001

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RE: STB Finance Docket No. 35087
Canadian National Railway Company and Grand Trunk Corporation – Control – EJ&E West Company

Dear Ms. Johnson-Ball:

Enclosed for filing is the original and 10 copies of the Village of Barrington's Comments on the Draft Environmental Impact Statement in the above-captioned proceeding.

Please acknowledge receipt of this filing by date-stamping the acknowledgement copy and returning it to our messenger.

Respectfully submitted,

Brendon P. Fowler

Brendon P. Fowler

Enclosure

cc: All parties of record

DC-1243825 v1

BARR-6

BEFORE THE
SURFACE TRANSPORTATION BOARD

Finance Docket No. 35087

CANADIAN NATIONAL RAILWAY COMPANY AND GRAND TRUNK CORPORATION
– CONTROL –
EJ & E WEST COMPANY

223700

THE VILLAGE OF BARRINGTON'S COMMENTS ON THE DRAFT ENVIRONMENTAL IMPACT STATEMENT

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ATTORNEYS FOR
THE VILLAGE OF BARRINGTON, ILLINOIS

Dated: September 30, 2008

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BEFORE THE
SURFACE TRANSPORTATION BOARD

Finance Docket No. 35087

CANADIAN NATIONAL RAILWAY COMPANY AND GRAND TRUNK CORPORATION
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THE VILLAGE OF BARRINGTON'S COMMENTS ON THE DRAFT ENVIRONMENTAL IMPACT STATEMENT

Pursuant to Decision No. 13 served by the Surface Transportation Board on July 25, 2008 in the above-captioned proceeding, the Village of Barrington, Illinois ("Barrington"), on behalf of itself and the surrounding townships and municipalities that rely on Barrington for essential services (collectively the "Barrington Community"),[1] hereby submits these comments on the Draft Environmental Impact Statement ("DEIS").

INTRODUCTION

Barrington is the commercial hub of the Barrington Community. The village has single and multi-family dwellings as well as offices, schools, churches, shops and a Metra commuter train station. The Barrington Community has a population in excess of 30,000, with 1,600 commuters riding Metra daily. The area includes tracts of open space and nature preserves, including Cuba Marsh and the Crabtree Forest Preserve, as well as other wetlands and parks.

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1 The Barrington Community consists of the Villages of Barrington, Barrington Hills, Deer Park, Lake Barrington, North Barrington, South Barrington and Tower Lakes, and Barrington and Cuba Townships.

The EJ&E rail line (the "EJ&E Line") traverses Barrington through its center. Over the decades, the EJ&E Line has been a light density railroad with very few trains passing through Barrington. The EJ&E Line crosses four critical roads and the Metra train line at grade in a span of 5,918 feet within Barrington's village limits. The EJ&E Line also crosses a fifth heavily-traveled road, Cuba Road, just east of the village limits, which sees average daily traffic of 8,300.[2] The most easterly crossing in Barrington at Lake Zurich Road is at the entrance to a 55-acre park recently developed by the Barrington Park District and home of the first handicapped accessible tree house in the State of Illinois. Moving westward through Barrington, the next two roads crossed by the EJ&E are very busy highways – U.S. Route 14, with a weekday average of about 30,000 trips per day, and Illinois Route 59 (a strategic regional arterial) with about 21,000 trips per weekday.[3] After crossing Route 59, the EJ&E Line crosses the Union Pacific/Metra line before crossing the fourth road, Lake Cook Road/Main Street (about 17,300 trips per weekday), very near Barrington High School, which has a student and staff population of over 3,000 and serves the entire greater Barrington area. In fact, all four crossings within Barrington's village limits (*i.e.*, Lake Zurich Road, U.S. 14, Route 59 and Lake Cook Road), are so tightly clustered within a distance of only 1.12 miles that one freight train could shut down all four thoroughfares simultaneously. This not only poses real problems for vehicular and pedestrian traffic, but also creates life-threatening delays by blocking emergency response vehicles.

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[2] 2004 U.S. Department of Transportation Crossing Inventory Information.

[3] Traffic counts were derived from a traffic study conducted by Barrington in November 2007 over a seven consecutive day period which measured traffic in each lane and direction. This information was compiled to calculate average weekday trips.

According to the Railroad Control Application ("Application") filed by Canadian National Railway Company and Grand Trunk Corporation (collectively, "CN" or "Applicants"), the Leithton to Spaulding segment (the segment that runs through Barrington) will see a significant increase in rail traffic – 15 trains per day for a total of 20.3 trains per day as a result of the CN Transaction.[4] That is an increase of 676 percent in gross tons per day. It is without doubt that such an increase in freight rail traffic will have substantial adverse impacts on the Barrington Community.

The Village of Barrington serves as the commercial hub for the Barrington Community. In addition, the surrounding communities also rely on Barrington for essential services such as the high school, the two middle schools, the Catholic grade school, the public library and numerous social service agencies. The headquarters for fire/EMS and police response is located at the Public Safety Facility on U.S. Route 14, less than one-quarter of a mile from the EJ&E crossing. Barrington Fire Department Station #1 (at the Public Safety Facility) provides primary response to Barrington and surrounding areas, and functions as the primary backup for a majority of the area served by its two satellite stations.

COMMENTS

I. Summary of Comments

The Village of Barrington respectfully submits that the only reasonable option available to the Section of Environmental Analysis ("SEA") in this case is to recommend the No-Action Alternative. Although there are significant flaws in the DEIS, it is clear that it would be impossible to adequately mitigate the adverse impacts of CN's proposed acquisition of the EJ&E Line (the "Proposed Action"). It is also clear that the Proposed Action has virtually no public

[4] *See* Application, Attachment A.2, at 247.

benefits and that CN could achieve many of its objectives (which benefit CN only) by adjusting the way that it operates trains in and through Chicago.

If SEA does anything other than recommend the No Action Alternative, then other major problems with the DEIS need to be addressed. First, SEA's preliminary environmental mitigation is grossly inadequate. The DEIS fails to adequately analyze the extent of the need for grade separation projects. The DEIS preliminary mitigation on grade separation projects fails to identify the root cause of the need for new grade separations, which is *CN's* Proposed Action and not any public road improvement project. The preliminary mitigation is not described with sufficient detail to allow affected communities and individuals to assess its impact.

In addition, the DEIS analysis of safety, transportation, environmental justice, energy, air quality and climate, noise and vibration and biological resource impacts is so individually and collectively flawed that it precludes meaningful analysis. The DEIS also completely omits two major cumulative effects. First, the DEIS concludes that the Proposed Action will bring the EJ&E Line to full capacity, but it does not go on to analyze the reasonably foreseeable possibility that CN will build the EJ&E Line into a double-track railroad. Second, the DEIS fails to consider the cumulative impact of the Proposed Action as combined with other national and regional rail transactions by CN and other carriers.

The fundamental flaws in the DEIS analysis of the proposed action cannot be corrected merely by addressing comments, in part because the flaws preclude complete meaningful comment at this stage. These flaws can only be corrected through a revision and recirculation of a new draft EIS, the scheduling of additional hearings for further public input, and an additional 60 days for the receipt of comments on the revised DEIS.

II. SEA Should Adopt The No-Action Alternative

The environmental impact of the Proposed Action cannot be adequately mitigated. The only reasonable recommendation SEA can make to the Board is to adopt the No-Action Alternative. Apart from the *impossibility* of adequately mitigating the numerous adverse environmental effects of the Proposed Action, the DEIS makes it clear that the Proposed Action has no public benefits. There would be no benefits to regional and local highways systems in the inner suburbs and Chicago, but only temporary relief from the current levels of freight traffic. There are no air quality or noise benefits associated with the Proposed Action. There is no reduction in fuel consumption associated with the Proposed Action

It is important to note that adoption of the No-Action Alternative would not leave CN without efficient routing options in and through Chicago. Many of the freight transportation benefits that CN would enjoy from the Proposed Action (benefits to CN only) can be captured if CN makes adjustments in the way that it routes freight traffic in and through Chicago.

A. The Environmental Impacts Of The Proposed Action Cannot Be Adequately Mitigated

Although the DEIS is flawed in numerous material ways, it is clear from the information already developed that the adverse environmental impacts of the Proposed Action cannot *possibly* be adequately mitigated. It *might* be possible, after fully and properly analyzing the environmental consequences of the Proposed Action, to develop appropriate mitigation for *some* of the adverse environmental impacts. However, it would not be possible to develop adequate grade separations for the dozens of at-grade crossings along the EJ&E Line to mitigate the adverse safety, regional and local highway system and emergency response impacts of the Proposed Action. The amount of money necessary to prepare the EJ&E Line for the kind of traffic CN proposes to move would exceed the entire projected cost of CREATE. Commissioner Buttrey's separate expression in Decision No. 13 noted that the environmental impacts on

communities along the EJ&E Line both now and in the future appeared to be incredibly high. He correctly observed that communities located along EJ&E's line north of Joliet were being "asked to bear the heavy burden of years of failed efforts to address the Chicago rail congestion problem."[5] Commissioner Buttrey wrote that "it is hard ... to imagine how even the most far-reaching mitigation measures would be enough to offset or balance the environmental detriments that would flow from this proposal."[6]

The only reasonable recommendation SEA can make to the Board is to adopt the No-Action Alternative.

B. The Proposed Action Has Virtually No Public Benefits

SEA will make its final recommendations on environmental mitigation to the Board in the Final EIS. The Board will then make its final decision regarding the Proposed Action. In making its decision, the Board will weigh the potential public benefits against the potential adverse effects to the national transportation system, interstate commerce, and affected regions and communities.[7] In this process the Board should take into account the fact that the Proposed Action has no public environmental benefits.

1. No Benefits to Regional or Local Highway Systems in Inner Suburbs and Chicago

Applicants indicate that by utilizing the EJ&E Line, CN will be able to "shift its trains from its five subdivisions in [the] Chicago metropolitan area" and "anticipate that the number of trains on most of CN's rail lines inside the EJ&E arc would decrease as the number of trains on the EJ&E rail line increases, potentially benefiting Chicago by reducing freight train congestion

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5 *See* Decision No. 13, at 9

6 *Id.*

7 *See* DEIS at ES-25.

..."[8] Yet any perceived economic, social, or environmental benefits from this purported traffic reduction will be illusory because the CN traffic moved off of CN's current routes will soon be replaced by new traffic

SEA's own data indicates that 37,500 rail cars currently travel through Chicago every day and that number is expected to increase to 67,000 per day by 2020.[9] SEA's capacity analyses indicated that the anticipated traffic growth cannot move over the EJ&E Line, which will be at maximum capacity under the Operating Plan and following completion of Applicants' proposed construction projects. The new traffic has to go somewhere and the obvious alternatives to the unavailable EJ&E Line are the lines and routes that CN uses today. The communities along CN's current routes would not see a significant, sustained reduction in train traffic from the proposed transaction. These communities at best would see only a temporary reduction in train traffic.

For example, Barrington has repeatedly requested that the Board and SEA apply greater scrutiny to both current and anticipated future traffic growth related to the new terminal facilities in the Port of Prince Rupert ("PPR"), and incorporate the likely impacts that the increasing popularity of PPR will have on the Proposed Action and related rail traffic in and around Chicago.[10] As a general matter, continued expansion of the PPR Fairview terminal is expected to quadruple capacity from the current 500,000 TEUs to 2 million TEUs by 2012. A second

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[8] *See* DEIS, 2-16, 17.

[9] *See* DEIS, 3.1-3.

[10] *See, e.g., The Village of Barrington's Comments to the Draft Scope of the Environmental Impact Statement*, STB Finance Docket No. 35087, *4-5, 16-17 (STB served February 15, 2008) (BARR-3); *Reply of the Village of Barrington to the Railroad Control Application and Petition Suggesting Procedural Schedule of Canadian National Railway Company and Grand Trunk Corporation*, STB Finance Docket No. 35087, *5-9, 11-12 (STB served November 19, 2007) (BARR-1).

terminal will add another 2 million TEUs by 2020. In the months since Barrington's repeated entreaties, the continued and accelerating traffic flow through PPR by way of CN's line has demonstrated the wisdom of Barrington's requests. On July 23, 2008, PPR announced that its 2008 tonnage was up 11% compared to 2007, and that "[w]eekly container volumes through Prince Rupert have been steadily increasing since early April, from 1,232 TEUs to a record of 2,631 TEUs, compared to the North American West Coast port trend of declines in container imports."[11] CN also welcomed additional cargo traffic at PPR due to the expansion of the COSCO/K-Line/Yang Ming/Hanjin shipping alliance, which commenced a second weekly steamship vessel trip to PPR.[12] That extensive shipping alliance will "now ship Hong Kong, South China, East China, and North China cargoes, as well as those from Yokohama, to North America via Prince Rupert."[13] According to CN, the expanding shipping alliance and increased port calls are a result of CN's creation of a "new, highly competitive gateway for goods entering North America *and transiting CN's network to the U.S. Midwest* and Central Canada."[14]

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[11] "Prince Rupert Port Container Traffic Achieves New Milestones" (July 23, 2008) (available at http://www.rupertport.com/pdf/newsreleases/prince%20rupert%20port%20container%20traffic%20achieves%20new%20milestones%20july%2023%2008%20%20nr.pdf.)

[12] "CN Welcomes Added Vessel Call at Port of Prince Rupert Container Terminal," Reuters (July 9, 2008) (available at http://www.reuters.com/article/pressRelease/idUS149410+09-Jul-2008+MW20080709)

[13] *Id.* Indeed, a number of international shippers recently filed letters in support of CN's Petition to Modify the Procedural Schedule that reveal the international scope of the Proposed Action as well as the certainty of increases in international shipping routed over the EJ&E Line. *See, e.g.*, Letter of William D. Nagel, General Manager Operations, Hanjin Shipping Company, LTD (Board served September 3, 2008) (asserting that, as a shipping company based in Seoul, South Korea, the Proposed Transaction "will help expedite our customers' containers destined to Memphis if they can travel around rather than through Chicago.")

[14] *Id.* (quoting James M. Foote, CN Executive Vice-President, Sales and Marketing) (emphasis added).

Through PPR, CN is now "consistently delivering fifth morning availability of containers *in Chicago and sixth morning availability in Memphis*, a leading U.S. distribution hub. With the growth in imports over Rupert, *we continue to identify new opportunities for backhaul container movements to Asia from the continental interior, including the U.S. Midwest* and Western Canada."[15]

PPR itself appreciates the increased traffic growth it would handle under the Proposed Action. In a recent interview, PPR's own Vice President of Marketing and Business Development Shaun Stevenson discussed the impacts the Proposed Action would have on the Port. In particular, PPR is enthusiastic that "the acquisition of [the EJ&E Line] would effectively bypass Chicago and the congestion that the rail system faces in Chicago" and "from a supply chain management perspective, it would effectively eliminate a 12-24 hour lag in crossing the City of Chicago and get goods faster into the DCs in Memphis and Chicago."[16] Although PPR acknowledged that you can "certainly understand" the concerns of entities such as Barrington "surrounding increased rail traffic on a line that for the most part's been virtually dormant and underutilized," in PPR's view the Proposed Action "permits *Chicago to grow as a distribution hub for the Midwest*" and "would just improve efficiency of the network that links [PPR] into the Midwest, likely trim 20 hours off the transit time into Memphis, actually."[17] PPR further acknowledges that its current 500,000 TEU capacity assessment was conservative, and that "we believe based upon what we're seeing in productivity it could be higher to 700,000-

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[15] *Id.* (emphasis added).

[16] "Prince Rupert Port Authority: An Interview With Shaun Stevenson," (September 2, 2008) (available at http://www.3plwire.com/2008/09/02/prince-rupert-port-authority-an-interview-with-shaun-stevenson/.)

[17] *Id.* (emphasis added).

800,000 TEUs."[18] Thus any potential reduction in traffic congestion in Chicago as a result of the Proposed Action is largely illusory. In fact there is little doubt that the combination of immediate at-capacity operations on the EJ&E Line and increased traffic flow to and from PPR *as a result of the presumed success of the Proposed Action* would inevitably funnel rail traffic back into Chicago as well as on the EJ&E Line. Under the Proposed Action, Chicago would rapidly see a return to its current levels of rail congestion (or higher) while also driving the EJ&E Line to full capacity.

2. The Proposed Action Would Not Reduce Air Or Noise Pollution Or Reduce Fuel Consumption

The Proposed Action would not improve air quality in the Chicago area. In fact, the DEIS concludes that air pollution emissions would increase in the Chicago area because of an increase in fuel use due to the longer routes taken by CN trains under the Proposed Action.[19] The two pollutants of greatest concern for Chicago's ozone non-attainment are nitrogen oxides (NO_x) and volatile organic compounds (VOC). The DEIS concludes that in 2015 (when operational changes are expected to be fully implemented), emissions of NO_x and VOC would increase.[20] The Proposed Action also would trigger a small increase in the emission of greenhouse gases.[21]

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[18] *Id.*

[19] *See* DEIS at 4.9.1. Although the DEIS concludes that the gross-ton mile efficiency of the entire CN system would be improved because of free flowing operations, the methodology used by SEA in the DEIS is so flawed that this conclusion about system-wide air quality benefits is unsubstantiated.

[20] *See* DEIS at 4.9-1, 2. The precise amount of the increases is estimated in the DEIS. *See* DEIS at 4.9-1, 2. However, as explained in Section 5, the methodology used by SEA to calculate the additional emissions is flawed.

[21] *See* DEIS at 4.9-2.

The Proposed Action would not reduce noise pollution. The DEIS concludes that the net number of noise-sensitive receptors in the 65dBA Ldn contour would increase by 258.[22] In fact 1,559 new noise-sensitive receptors on EJ&E would experience an Ldn of 70dBA or greater on the EJ&E rail line.[23]

The Proposed Action would not reduce diesel fuel consumption. The DEIS concluded that CN train operations would be more efficient, but that the greater distance traveled by CN trains using the longer EJ&E rail line route would result in a net increase of 631,255 more gallons of diesel fuel burned by CN locomotives and an increase in consumption of approximately 84,242 gallons of gasoline and 8,187 gallons of diesel fuel in cars and trucks idling at highway/rail at grade-crossings.[24]

C. The No-Action Alternative Would Still Leave CN With Efficient Chicago Routing Options

Adoption of the No-Action Alternative would not leave CN without efficient routing options in and through Chicago. For example, CN acquired the Waukesha Subdivision when it acquired the Wisconsin Central Ltd. ("WCL") and its various subsidiaries in 2001.[25] Before CN took over, WCL classified all Chicago-bound cars before they reached the Chicago Terminal, pre-blocking cars bound for interchange with various connecting railroads. WCL brought its trains into Schiller Park Yard and, after refining its blocks, delivered them directly to the

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[22] *See* DEIS at 4.10-1.

[23] As noted in Section IV.6, the DEIS methodology for evaluating noise impacts is fatally flawed.

[24] *See* DEIS at 4.8.1.

[25] *See Canadian National Railway Company, Grand Trunk Corporation and WC Merger Sub-Control – Wisconsin* Central *Transportation Corporation, Wisconsin Central Ltd., Fox Valley & Western Ltd., Sault Ste. Marie Bridge Company, and Wisconsin Chicago Link Ltd.*, Finance Docket No. 34000 (STB served September 7, 2001).

receiving carriers. WCL delivered approximately 90 percent of its traffic in this fashion, using its trackage rights on the doubled-tracked, largely grade-separated Indiana Harbor Belt Railroad ("IHB"). Only approximately 10 percent of WCL's traffic moved from Schiller Park Yard over the Baltimore and Ohio Chicago Terminal Railroad ("BOCT") past Union Pacific's Global II Yard and across the St. Charles Airline. Thus, WCL used available, high volume rail infrastructure and acted to *avoid* the most congested parts of the Chicago Terminal on the vast bulk of its Chicago traffic. WCL's pre-blocking required crews to do additional work before entering Chicago, but the work was essential to good service and efficient interchanges with other Chicago-area railroads.

When CN took over it did things differently. Instead of pre-blocking traffic before reaching Chicago and maintaining those blocks upon arrival, CN ran all trains through congested parts of the Chicago Terminal. It ran mixed trains to its inner-city yards; there, most cars were switched into trains bound for the ICG's Harvey Yard. This required lengthy trains to use the St. Charles Airline. Outbound trains did the same thing in reverse. Thus, CN trains in both directions conflicted with the trains of all other railroads, including Amtrak. The problems that CN has today in the Chicago Terminal are problems it brought on itself in an apparent effort to reduce operating costs associated with the pre-blocking of trains outside of Chicago, and to avoid fees for trackage rights on the Indiana Harbor Belt line between Park (where WC meets the IHB line) and Blue Island (where IHB meets CN's GTW line).

By virtue of the WCL acquisition, CN has trackage rights on the IHB today. If CN reconsiders the way WCL got the job done and makes changes in its current classification practices, it can operate through Chicago without causing the congestion it inflicts on itself

today. Thus, adoption of the No-Action Alternative would not leave CN without efficient routing options in and through Chicago.

III. SEA's Preliminary Environmental Mitigation Is Grossly Inadequate

SEA's preliminary environmental mitigation falls short in numerous material ways. The DEIS fails to properly analyze local and regional roadway system impacts and that inadequacy causes SEA to miss some number of grade crossings that would be substantially affected by the Proposed Action. How many? No one can tell from this DEIS. Even with respect to the grade crossings SEA identifies, SEA fails to propose mitigation that reflects the reality of the Proposed Transaction. If not for the Proposed Action, none of the communities along the EJ&E Line would need new grade separation projects at present levels of vehicle or rail traffic. The grade separation projects needed on the EJ&E Line are part of the Applicants' project and it should be funded by them. Any public funding of grade separation projects would in effect be a corporate subsidy to CN. In other respects, the mitigation proposed by SEA is not tied directly to the harms of the transaction.

The problem with the DEIS mitigation analysis is that the environmental impact of the Proposed Action cannot be adequately mitigated and the only reasonable recommendation SEA can make to the Board is to adopt the No-Action Alternative.

A. The DEIS Fails To Adequately Analyze The Extent Of The Need For Grade Separation Projects

SEA evaluated the potential effects of the Proposed Action on roadway traffic by measuring the effects on local and regional roadway systems and on emergency vehicle

responses and potential delays.[26] Based on this analysis SEA concluded that 15 grade crossings would be "substantially affected" by the Proposed Action. SEA defined "substantially affected" to be one of three things:

- A queue length that would block a roadway that is not blocked under the No-Action Alternative;
- A roadway would become at or over-capacity (further defined as Level of Service E-F) as a result of the Proposed Action; or
- Delay for all delayed vehicles of more than 40 hours per day as a result of the Proposed Action.[27]

The 15 identified crossings were listed in Table 6.3-1.[28]

As is explained in Section IV.B 2, *infra*, the DEIS does not accurately measure the impact of the Proposed Action on regional and local highway systems and does not take the required hard look at the adverse regional and local highway impacts of the Proposed Action. One consequence of the flaws in the DEIS highway systems analysis is that SEA has missed some number of grade crossings that, even under SEA's enumerated criteria, would be "substantially affected" by the Proposed Action. Part of the problem with the DEIS grade crossing analysis arises because the environmental impact of the Proposed Action cannot be adequately mitigated and the only reasonable recommendation SEA can make to the Board is to adopt the No-Action Alternative.

In any case, faced with the flawed DEIS, Barrington undertook its own highway impact analysis in order to develop more accurate estimates of the impact of the Proposed Action on vehicle delays at crossings in the Barrington area. Barrington's analysis shows that, in addition

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[26] *See* DEIS at 4.3-1.

[27] *See* DEIS at 4.3-10.

[28] *See* DEIS at 6-18.

to the EJ&E Crossing of IL Route 59 (Hough Street), which is among the 15 crossings identified in the DEIS due to queue length blockage, the EJ&E Crossing of US Route 14 (Northwest Highway) and the EJ&E Crossing of Lake-Cook Road (Main Street) would see substantial additional total hours of delay per day and significant queue length blockage as a result of the Proposed Action. *Id.*

Unfortunately, many communities will not have the time to undertake their own traffic analyses in the very short comment period set by the Board in this proceeding. Many communities will have nothing but SEA's analysis to look at in their assessment of the impact of the Proposed Action. The present DEIS analysis does not provide these communities with what they need because of the flaws in SEA's approach. The DEIS fails to adequately analyze the extent of the need for grade separation projects.

B. The DEIS Fails To Propose Mitigation That Reflects The Root Cause Of The Needed Grade Separation Projects

SEA noted that it had received many public comments asking the Board to require the Applicants to fully fund new at-grade separation projects on the EJ&E Line. SEA noted that many communities along the EJ&E Line already faced traffic congestion at highway/rail grade crossings, that they would benefit from grade separations and that existing traffic congestion was caused not only by EJ&E trains but also other freight and commuter trains.[29] SEA then wrote:

> It would be inappropriate to hold the Applicants responsible for the presence of the many existing at – grade rail crossings in the communities along the EJ&E rail line, and the rarity (and in some communities, the absence) of grade-separated crossings. Moreover, railroads historically have not paid for more than a small share (5 to 10 percent) of grade separations because grade separations primarily benefit the community and not the railroad.

[29] *See* DEIS at 6-17.

> SEA considers many of these problems as "pre-existing" conditions and beyond the Board's authority to mitigate here. But, as explained in Section 4.3.1 and above, the Proposed Action would in some cases, exacerbate the existing problems, and at the 15 highway/rail at-grade crossings listed in Table 6 3.1, below, would cause substantial effects. Therefore, SEA believes that mitigation is both appropriate and warranted at the 15 at-grade crossings. Because the vehicle congestion problems are a combination of existing conditions and potential effects resulting from the Proposed Action, however, SEA believes the remedies (that is, mitigation) appropriately should be funded by a combination of entities, and not by the Applicants alone [30]

There are several problems with these statements. First, the relevant question is not whether communities along the EJ&E rail lines (rather than the railroad) would benefit from more grade-separations. None of the communities seeking grade-separate crossings throughout the Study Area came to SEA or the Board to improve their transportation systems and roadways by proposing that third-parties pay for new grade separations. Instead, this is a case where CN seeks Board approval to substantially reroute rail traffic out of Chicago, to communities along the EJ&E rail line, and those communities seek *protection* from the Proposed Action in the form of grade separations.

Second, although all of the communities already face some level of traffic congestion at highway/rail grade crossings, none of them would need to consider grade separation projects at these crossings at this time or at any time in the foreseeable future if CN was not seeking authority to acquire the EJ&E rail line. None of the EJ&E communities would need grade separations if EJ&E traffic levels remained at historical levels or grew at historical rates. Similarly, the fact that current traffic congestion is not caused solely by the EJ&E trains, but instead is also caused by the presence of other freight lines and commuter trains is of no consequence. If traffic on other freight lines and commuter traffic stayed at historical levels,

[30] *See* DEIS at 6-18.

none of the communities in question would need to fund grade-separation projects on the EJ&E crossings. For SEA to say that it would be "inappropriate" to hold CN responsible for the cost of grade separation projects is to ignore the fact that "but for" the Proposed Action, the communities in question would not need grade separation projects. The Proposed Action is what triggers the need for grade separation projects.

Third, SEA's observation that railroads historically pay a small share of grade-separation costs because grade separations primarily benefit the community and not the railroad is a doubly incorrect, apple to oranges comparison. If a state or local government, of its own volition for safety, traffic or other reasons, chooses to undertake a grade-separation project, it is true that railroads typically pay only a small share. This is not such a case. This is not a situation where a state or local government seeks to benefit a community by undertaking a grade separation project. It is a private corporation seeking to benefit itself through the acquisition and dramatic change in use of a rail line. Because CN has triggered the need for grade separations, it is absolutely appropriate to hold it responsible for the entire cost of grade separation projects.

SEA's badly mistaken approach to grade separation causation is due in part to the fact that the environmental impact of the Proposed Action cannot be adequately mitigated. The Proposed Transaction would trigger an unprecedented, massive shift in freight traffic. The only reasonable recommendation SEA can make to the Board is to adopt the No-Action Alternative

C. Mitigation Is Not Specifically Tied To Environmental Harms

SEA has proposed environmental mitigation measures that it claims will eliminate or minimize the adverse environmental impacts of the Proposed Action, as identified in Chapters 3 and 4 of the DEIS. SEA's proposed environmental mitigation measures are inadequate, among other reasons, because the DEIS fails to specify the particular adverse environmental impact that each mitigation measure is designed to address. This lack of specificity reflects the fact that

SEA has not taken the necessary "hard look" at the environmental impacts of the Proposed Action as required under NEPA, that SEA has not fairly evaluated these environmental impacts, and that SEA has not provided relevant information that affected stakeholders need in order to evaluate the consequences of the proposed mitigation.

NEPA requires that an EIS contain a detailed discussion of the available measures to mitigate adverse environmental impacts.[31] It is not enough to merely list possible mitigation measures.[32] Mitigation must be "discussed in sufficient detail to ensure that environmental consequences have been fairly evaluated."[33] As part of this discussion, the EIS must include reasons "why a certain mitigative step was chosen and the impact of that choice in enough detail" to ensure the fair evaluation of the environmental impacts.[34]

Without a discussion of the rationale for particular mitigation measures, the reviewing federal agency has not taken the requisite "hard look" at the adverse environmental impacts of the proposed action.[35] Moreover, without such a discussion, it is not possible to properly evaluate the severity of the adverse environmental impacts of the proposal [36]

SEA's proposed mitigation measures fail to meet these standards for several reasons. First, although SEA has proposed 72 mitigation measures in addition to the 76 voluntary

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[31] *See* 40 C.F.R. §§ 1502.14(f), 1502.16(h); *see also Robertson v. Methow Valley Citizens Council*, 490 U.S 332, 351-352 (1989).

[32] *See Neighbors of Cuddy Mountain v. United States Forest Service*, 137 F.3d 1372, 1380 (9th Cir. 1998).

[33] *Id.* at 352.

[34] *Mid States Coalition v. Surface Transportation Board*, 345 F.3d 520, 557 (8th Cir. 2003).

[35] *Id* at 536.

[36] *Methow Valley*, 490 U.S. at 352.

mitigations measures proposed by the Applicants, SEA has not provided a detailed analysis on whether these are the appropriate mitigation measures to address the identified adverse environmental impacts. SEA merely lists the mitigation measures, but does not specifically tie the measures to particular environmental impacts. There is no detailed discussion of why the proposed mitigation measures were chosen and why those mitigation measures address the adverse environmental impact identified by SEA. Moreover, many of the voluntary measures proposed by the Applicants and adopted without analysis by SEA require nothing more than compliance with applicable law.

Second, because the Applicants' voluntary mitigation measures are not tied specifically to particular adverse environmental impacts identified in the DEIS, it is impossible to fairly evaluate whether SEA's 72 additional proposed mitigation measures, which supplement the Applicants' voluntary mitigation measures, address the adverse environmental impacts of the Proposed Action.

SEA's proposed mitigation measures relating to noise and vibration are illustrative of the inadequate evaluation of mitigation measures in the DEIS.[37] SEA stated that it evaluated the environmental impact of the Proposed Action on noise and vibration. SEA then cited the Applicants' vague promise to consider "noise walls and other mitigation to bring noise levels down to 70 dBA," but did not explain how noise walls and other unspecified mitigation measures will reduce noise levels and other environmental impacts of the Proposed Action at specific locations. SEA then proposed certain additional mitigation measures, including requirements for track design and installations, inspections of rail car wheels and tracks, and communicating with communities regarding establishing Quiet Zones. Again, SEA failed to explain why these

[37] DEIS, Section 6.3.10.

mitigative steps were chosen and how they will address specific adverse environmental impacts identified in other sections of the DEIS.

SEA's proposed mitigation measures regarding air quality and climate are also illustrative. SEA stated that it addressed air pollutant emissions associated with the Proposed Action in Chapter 4.[38] SEA then cited to certain of the Applicants' voluntary mitigation measures without explaining how these voluntary mitigation measures would specifically address the air quality and climate impacts of the Proposed Action. SEA provided recommendations for additional mitigation, including recommending that the Applicants comply with applicable EPA emissions standards for diesel-electric railroad locomotives and that Applicants notify local fire departments regarding burning activities. As with the voluntary mitigation measures, SEA did not provide detailed discussion on why these particular mitigative measures were chosen and what impact they would have on the environmental impacts that SEA had identified.

Part of the reason the proposed mitigation misses the mark so badly on noise/vibration and air quality is that the environmental impact of the Proposed Action cannot be adequately mitigated. It is impossible to match mitigation to adverse impacts when no mitigation will work. The only reasonable recommendation SEA can make to the Board is to adopt the No-Action Alternative.

D. If The Proposed Action Is Approved, That Approval Should Be Conditioned On Mitigation For Barrington

As noted above, SEA should adopt the No-Action Alternative, because the environmental impacts of the Proposed Action cannot be adequately mitigated If SEA recommends approval of the Proposed Action, however, that approval must be conditioned upon an obligation on the

[38] DEIS at 6.3.9.

part of the Applicants to pay the full cost (design, construction and maintenance) of lowering the EJ&E Line into a trench that would allow the streets crossing the line from Cuba Marsh through the Barrington area to retain their current elevation and grade It is particularly important that Lake Zurich Road, US Route 14, Illinois Route 59 and Lake Cook Road be grade-separated.

In addition, Applicants should be required to pay the full cost of suitable retaining walls and other infrastructure to minimize safety, noise and air quality impacts of the trench. Barrington recognizes that a trench will be very expensive and will not fully mitigate the impacts of the Proposed Action, which is why it advocates the No-Action Alternative. The Applicants must be required to complete the trench (and all other mitigation) by the earlier of the third anniversary of any final STB decision approving the transaction or the time that CN is running an average of seven trains per day on the Leithton to Spaulding segment in any consecutive (4) week period. For the sensitive receptors that are outside the area of the trench, Barrington requests full mitigation for the adverse noise impacts, including sound insulation and sound barriers.

Furthermore, additional mitigation should be required in the event that full grade separations and other mitigation are not immediately approved. In that instance, CN should be required to pay for and complete an extensive mitigation plan for Barrington, including the maintenance and creation of Quiet Zones.[39] In addition, appropriate noise and vibration mitigation should be required of and funded by CN, including sound walls, berms, and other structures as determined and approved by Barrington. CN should also be required to fund the construction and maintenance of, as well as training for, EMS technologies to alert EMS

[39] SEA has already determined that mitigation would be necessary regarding Barrington's Quiet Zone, and that CN should be required to fund all necessary improvements. *See* DEIS, at 6-15 (Preliminary Environmental Mitigation Measure No. 8).

responders as to rail traffic and accidents in order to minimize response times and delays due to CN activities. CN should also provide funding for the acquisition of and training for hazardous materials equipment and response activities in the event of a collision, derailment, or release of materials. CN should also be precluded from constructing or seeking to construct double-tracking or other line improvements that will increase rail traffic within three (3) miles of Barrington.

However, Barrington's comments on mitigation do not mean that Barrington will stand pat with mitigation and let CN ruin Barrington. The only reasonable recommendation SEA can make to the Board is to adopt the No-Action Alternative.

IV. The DEIS Is So Flawed That It Precludes Meaningful Analysis And Must Be Revised

To summarize what is explained below, the DEIS has the following material omissions, gaps in analysis and unexplained/unsupported conclusions, and other material flaws:

- The DEIS adopted CN's stated objectives as the Purpose and Need definition for the Proposed Action and thereby made it logically impossible to seriously analyze and consider possible alternatives to the proposed transaction.
- The safety analysis in the DEIS improperly assumes that CN will resolve the high accident rate on the EJ&E. This assumption invalidates the entire safety analysis.
- The analysis of impacts on regional and local highway systems (roads, grade crossings and traffic queuing) is a mixture of Highway Capacity Manual ("HCM") terminology with non-HCM analysis and assumptions and fails to give local agencies and citizens the information they need to evaluate the impact of the Proposed Action.
- The environmental justice analysis in the DEIS improperly compares population groups, fails to explain and document its methodology and contains data that is in conflict with other sections of the DEIS.
- The energy analysis in the DEIS contains two estimates of fuel use supplied by CN. The lower, more favorable estimate of fuel use, which is 3.5 times less than the higher estimate, is based on an unsubstantiated claim by CN and is used in the DEIS to reach a conclusion that the Proposed Action would cause only a small increase in fuel use. However, the DEIS fuel use estimates fail to take into

account the idling of trains on the EJ&E Line. In addition, the DEIS assertion of an increase in fuel use (over 700,000 gallons per year) is contrary to CN's claim of improved efficiency.

- **The air quality analysis assumes a huge, unsubstantiated decrease in air emissions, the effect of which converts the proposed action from one that was initially projected to far exceed the threshold for threatening metropolitan Chicago's efforts to meet attainment compliance under the Clean Air Act into an action that conveniently manages to barely avoid that threshold.** The analysis also omits the air emissions from rail yards, and fails to analyze emissions of localized air toxics from rail yards and the main line track Moreover, the DEIS uses the wrong factors to calculate air emissions from idling locomotives, which could underestimate the localized health threats from air toxics. The adequacy of the analysis is also affected by the fact that it does not seem to take into account the results of the rail operations analysis, which indicates that the EJ&E Line would quickly reach capacity under the Proposed Action. Furthermore, the DEIS fails to properly acknowledge or analyze the greenhouse gas emissions and impacts for the Proposed Action.

- The scope of the noise analysis is inconsistent with the Board's regulations and therefore the DEIS fails to provide full disclosure of potential noise impacts to the public. The noise analysis in the DEIS makes numerous unsupported statements and conclusions, and employs an outdated and inaccurate methodology. The conclusion of the DEIS on noise, that there will not be significant adverse noise impacts, is based on *adding* noise reductions in one area to noise increases in another area. This is grossly unreasonable and, not surprisingly, unprecedented in the field of environmental noise analysis. SEA used a 70/+5 DNL criteria, which is improper absent rigorous feasibility and cost analysis.

- SEA has inappropriately concluded that the Proposed Action is "not likely to adversely affect" a variety of species. SEA reached this conclusion without performing field surveys of potential habitat and without input from the U.S. Fish and Wildlife Service ("USFWS"). Instead, in reaching its premature conclusion SEA relies on "mitigation" consisting of future surveys. In addition, the DEIS fails to analyze potential impacts to the Indiana bat, despite USFWS expressing concern over potential impacts to this endangered species. By failing to adequately analyze potential effects on these species, and failing to disclose potential taking of threatened or endangered species to the public and the decision-maker, SEA has violated Section 7 of the Endangered Species Act and NEPA.

- The DEIS does not analyze the environmental impact of CN's reasonably foreseeable capacity improvements on the EJ&E Line, including a full double-tracking of the entire line, thereby failing to consider a indirect/cumulative effect of the Proposed Action.

Under Section 1502.9(a) of the Council on Environmental Quality ("CEQ") regulations, if a draft environmental impact statement is so inadequate as to preclude meaningful analysis, the agency must circulate a revised draft. That is exactly the situation here. The DEIS is so flawed that it simply cannot be meaningfully analyzed by the public.[40] Any one of the material defects listed above and discussed herein could justify a revised EIS. The cumulative effect of the defects makes the need for a revised DEIS abundantly clear

A. SEA Did Not Properly Define Purpose and Need and Failed to Evaluate Alternatives to the Proposed Action

Alternatives are the "heart of the environmental impact statement."[41] Yet in the DEIS, SEA adopted CN's stated objectives for the proposed transaction as the Purpose and Need definition for the DEIS without any scrutiny or analysis. SEA did not analyze CN's stated objectives or consider whether any of the objectives could be achieved by other means. By grafting CN's stated objectives into the Purpose and Need definition, SEA made it logically impossible to seriously analyze and consider possible alternatives to the proposed transaction.

The reviewing agency bears the burden of responsibility for deciding which alternatives to consider in an environmental impact statement.[42] It "follows that the agency thus bears the responsibility for defining at the outset the objectives of an action."[43] An agency "may not define the objectives of its action in terms so unreasonably narrow that only one alternative from

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[40] The flaws in the DEIS are not the result of changes in the proposed action and therefore could not be addressed through the issuance of a Supplemental EIS *See* 40 C.F.R. §1502 9(c). Only a revised EIS that adequately addresses all of the environmental impacts will suffice.

[41] 40 C.F.R. § 1502.14.

[42] *Citizens Against Burlington, Inc. v. Busey*, 938 F.2d 190, 195 (D C. 1991).

[43] *Id.* at 195-96.

among the environmentally benign ones in the agency's power would accomplish the goals of the agency's action, and the EIS would become a fore-ordained formality."[44] Agencies must "look hard at the factors relevant to the definition of purpose" and, when asked to sanction a specific plan, should "take into account the needs and goals of the parties involved in the application."[45]

While an agency may reject alternatives that do not meet the purpose and need of the project, they may not define a project so narrowly that it forecloses a reasonable consideration of alternatives.[46] The "'purpose' of a project is a slippery concept ... one obvious way for an agency to slip past the structures of NEPA is to contrive a purpose so slender as to define competing 'reasonable alternatives' out of consideration (and even out of existence)."[47] Moreover, under NEPA the agency is required to consider alternatives that, while individually unable to meet the purpose and need of the project, might meet the purpose and need if considered cumulatively.[48]

For example, the Seventh Circuit has stated that "[i]f the agency constricts the definition of the project's purpose and thereby excludes what truly are reasonable alternatives, the EIS cannot fulfill its role. Nor can the agency satisfy [NEPA]."[49] In what the court described as a "textbook vindication of the wisdom of Congress in insisting that agencies follow those [NEPA] procedures in the first place," the court held that arguments by the agency that it is forced to

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[44] *Id.* at 196.

[45] *Id.*

[46] *Davis v. Mineta*, 302 F.3d 1104, 1119 (10th Cir. 2002).

[47] *Id.* (citing *Simmons v. United States Army Corps of Eng'rs*, 120 F.3d 664, 666 (7th Cir. 1997)).

[48] *Id.* at 1121-22 (agency's failure to consider transportation management system, mass transit, and road expansion alternatives cumulatively rather than individually was "egregious").

[49] *Simmons*, 120 F.3d. at 666.

accept the definition of "purpose and need" provided by the entity proposing the project is a "losing position".[50] In other words, an "agency cannot restrict its analysis to those 'alternative means by which a particular applicant can reach *his* goals.'"[51] The agency has "the duty under NEPA to exercise a *degree of skepticism in dealing with self-serving project statements from a prime beneficiary of the project.*"[52] In short, "[i]f NEPA mandates anything, it mandates this: a federal agency cannot ram through a project before first weighing the pros and cons of the alternatives."[53]

In the present proceeding CN asserted, and SEA adopted without scrutiny, three primary purposes for the Proposed Transaction:

- To improve the Applicants operations in and beyond the Chicago metropolitan area by providing CN with a continuous rail route around Chicago, under CN's ownership, that would connect the five CN rail lines radiating from Chicago
- To make EJ&E's Kirk Yard, as well as smaller facilities at Joliet, Illinois, and Whiting, Indiana, available to the Applicants, thus enabling them to consolidate rail car classification work at Kirk Yard and East Joliet and to reduce the use of the BRC Clearing Yard.
- To enable the CN system to benefit from an important supply line EJ&E provided for North American steel, chemical, and petrochemical industries, as well as for Chicago-area utilities and others, thereby allowing the Applicants to develop a closer and more extensive relationships with companies in serving those industries.[54]

The DEIS does not test or analyze any alternative routes or transactions that might also allow Applicants to accomplish their stated goal of improving operations in and beyond Chicago.

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[50] *Id.* at 666, 669.

[51] *Id.* (citations omitted) (emphasis in original).

[52] *Id.* (citations omitted) (emphasis added).

[53] *Id.* at 670.

[54] *See* DEIS at 1-8.

The DEIS does not include a discussion of any alternative routes that would connect less than all of CN's five rail lines in Chicago. The DEIS does not discuss or analyze whether CN could consolidate rail car classification at any yard in the Chicago area other than Kirk and East Joliet Yards. It does not discuss, for example, whether CN could centralize car classification in Hawthorne Yard, Glenn Yard, or Markham Yard. CN expresses a desire to reduce use of the BRC Clearing Yard due to congestion. The DEIS does not discuss or analyze whether alternative routings would alleviate congestion near BRC Clearing Yard or whether the proposed bypass route made the desire to reduce BRC Clearing Yard usage less important. The DEIS does not discuss or analyze any options other than purchase with respect to Kirk or East Joliet Yards. The DEIS does not discuss or analyze CN's asserted desire to "benefit from an important supply line EJ&E provided for North American steel and petrochemical industries" by acquiring the EJ&E Line. This is the most self-limiting aspect of the Proposed Transaction. By including this stated goal in the Purpose and Need definition of the DEIS, SEA almost literally assured that no other alternatives could be considered. To say that a purpose of a transaction is to serve on-line EJ&E shippers and to consequently not discuss or analyze alternatives to ownership of the EJ&E Line is an egregious omission by SEA.

SEA had an obligation to define the Purpose and Need of the Proposed Action more broadly -- a better route for traffic moving through Chicago, yard capacity for car classification and better service to EJ&E customers in key industries -- and to define and evaluate alternatives from this more broadly defined Purpose and Need.[55] SEA failed to fulfill this obligation

[55] Among other things, the DEIS should have evaluated alternatives that made more and better use of CN's existing lines and trackage rights. *See* Section II.C, *supra* and *Village of Barrington Comments On The Draft Scope of the Environmental Impact Statement* at 11-13.

If SEA does not recommend the No-Action Alternative, it will need to revise the DEIS and recirculate it. The revised DEIS would need to include SEA's *own* purpose and need definition and would need to analyze reasonable alternatives. One example of a reasonable alternative is the implementation of CN's portion of the CREATE public-private partnership, a six-year program that is designed to relieve rail and highway congestion in the Chicago area. The plans for CREATE projects that would improve CN's operations are reasonable and feasible, and would not have the harmful environmental impact of the Proposed Action.

In addition, there may be alternative routes outside the EJ&E Line in Northern Illinois, well outside the greater Chicago metropolitan area, that SEA should urge CN to evaluate and discuss with other railroads. Obviously, such alternatives would require that CN reconfigure its operating plan and negotiate with third parties, but this would be a small price to pay if CN could develop an alternative route on trackage that is built to handle large volumes of freight traffic or that could be rebuilt at significantly lower cost than paying hundreds of millions in mitigation and rebuilding the EJ&E Line. Even if CN does not choose to evaluate such options, SEA itself has a NEPA obligation to identify and take a hard look at such alternatives.

B. The DEIS Did Not Properly Analyze the Environmental Consequences of The Proposed Action

1. Safety

The DEIS's safety analysis is also lacking The DEIS contains no basis or support for assuming that the historically high accident rate on the EJ&E Line would be adequately addressed by CN through its Safety Integration Plan The DEIS simply assumes that the accident rate on the EJ&E would fall to a much lower rate under CN ownership. This in turn significantly skews the overall freight rail safety analysis. The DEIS assumes there will be fewer accidents along the existing CN rail lines and subtracts this number from the predicted accidents along the

EJ&E to give an overall prediction of accidents under the Proposed Action This implies a connection that does not exist since these are two distinct rail corridors. In addition, proposed mitigation measures are presented by SEA for blocked crossings, but blocked crossings are not analyzed in the DEIS. If blocked crossings create a safety hazard that warrants mitigation, that safety hazard should be disclosed and analyzed in the DEIS.[56]

a. Inconsistencies in Relative Accident Rates

Tables 3.2-3 and 4.2-1 present the average historical accident rates on the CN and EJ&E railroads as 4.2 accidents per million train miles and 18 3 accidents per million train miles, respectively. As noted in both Sections 3.2 and 4.2, the EJ&E average rate of 18.3 is considerably higher than the average rate of 4.9 accidents per million train miles for Group 2 railroads overall.[57] The text preceding Table 3.2-3 states that "...the table, however, does not indicate the location, cause, or severity of accidents above the minimum damage threshold." The reason for not presenting, or apparently even considering, this information in the DEIS should be clarified. This information is particularly relevant because of the way the historical accident data was used to project future accidents under future Action and No Action conditions, as discussed below.

It is also unclear whether the accident rates in Table 4.2-1 include accidents on the main tracks, yards or both. If one combines the main track and yard categories (with CN and EJ&E

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[56] The DEIS addressed CN's safety record only in the United States and not also in Canada. The only stated rationale for not addressing CN's overall safety record is that "rail safety statistics in Canada are collected and analyzed in a different manner than that used in the United States." Final Scope of Study, at 6. This is an arbitrary reason to limit the analysis of CN's safety record. Canadian data on CN's safety record may not be available in an easily comparable format, but it is relevant to significant adverse impacts and it is available. SEA was obligated to obtain and consider such information. *See* 40 C.F.R. § 1502.22(a)

[57] *See, e.g.*, DEIS 4.2-2. Group 2 railroads are all railroads except Class 1 railroads with 400,000 annual employee hours or more.

data from Table 4.2-2) to develop one single accident rate, the results are different from the ones included in Table 4.2-1. We were likewise unable to replicate the calculations included in Table 4.2-2 based on the expressed number of main track miles and accidents. The DEIS needs to explain the inconsistencies in the rail accident rates utilized in the analysis.

b. No Support for Claimed Reduction in EJ&E Line Accident Rates Under Proposed Action

The discussion preceding Table 4.2-3 indicates that SEA has assumed that the higher historical average accident rate along the EJ&E Line would drop to the much lower CN rate (1.54) under the Proposed Action. The basis presented is that CN's Safety Integration Plan (SIP) would be applied to the EJ&E. With no analysis to substantiate it, this assumption requires a considerable leap in logic As discussed above, no information is provided regarding the cause, severity, or location of recorded accidents. Thus, there is no basis provided for assuming that the factors that contributed to the high number of historical accidents on the EJ&E Line would be addressed through implementation of the proposed SIP. This assumption significantly affects the conclusion of the main track safety analysis. Even though the annual train miles on the EJ&E Line are projected to increase by over 200% under the Proposed Action, applying the much lower accident rate assumed by SEA results in a projected increase in accidents of approximately 30%. The analysis should have included an assessment of the factors that contribute to the historical rate on the EJ&E Line, and explain how implementation of the SIP would address them.

Furthermore, the conclusion under the *Main Track Train Accidents* subsection states that "[t]he potential increased accident rate along the EJ&E Line would be directly related to the increased number of train miles traveled rather than an indication of an unsafe rail system."[58]

[58] DEIS, 4.2-5.

The wording is not consistent with the assessment that precedes it because it indicates that the accident rate would increase under the Proposed Action, when in fact the DEIS indicates that the rate would decrease. But assuming that the overall intent is to address the projected increase in the number of accidents, this statement also employs circular reasoning. The conclusion that the increase in accidents under the Proposed Action would not be due to safety flaws in the rail system is based only on the fact that this was directly assumed in the assessment. Thus, based upon the information presented in the DEIS, this is not a conclusion – it is an assumption. As noted in the previous paragraph, the analysis is undermined by the lack of any explanation as to how the SIP would actually reduce the average accident rate.

In Table 4.2-6 and the Conclusion section following the table, the combination of the EJ&E increase in daily switching volumes with the CN decrease is irrelevant. As these are two distinct corridors, a perceived benefit for the CN line does not offset an adverse impact for the EJ&E Line. Combining these values implies a connection that does not exist, and any analysis premised on such a connection is inherently arbitrary. In addition, the bottom line of Table 4.2-6 does not add up to the "EJ&E Total" and "CN Total" values presented above it (though this point is moot since the values should not be combined in the first place). This is in addition to the fact that this section is about the impact on yard accidents, not switching volumes; and that it is inferred but not stated in this table that a correlating increase/decrease in yard accidents would be expected to result.

It is also unclear how SEA considers or applies the Rail/Rail Crossings analysis with regard to "exposures" or "potential conflicts" at rail-rail at grade crossings. Under the *4.2.1.2 Rail/Rail Crossings* subsection, the text acknowledges that the exposure calculation provides an index that is valuable for comparison, but that the value in itself does not have much meaning.

Only cumulative values are presented for which the individual exposure values along the length of each railroad were apparently added up.[59] There is not sufficient information provided to put the aggregate values into any kind of context. Further, there is no indication given as to what methodology SEA applied to its determination that, for example, the EJ&E Line would see an increase of 7,179 "exposures" under the Proposed Action, from 3,727 at present. If the exposure almost triples, does this mean the potential for accidents also triples? This approach also seems to assume that the magnitude of increases in rail/rail exposure at individual locations does not matter – that it's only the aggregate value along the entire rail line that should be considered.

c. Vehicle Safety

The "Accident Prediction" formula, introduced on page 4.2-13 and further described in section C.2.4 of Appendix C, applies a number of factors that are not defined in the DEIS. The DEIS needs to provide sufficient information about the methodology to allow the reader to understand the basis for conclusions. As it stands, the reader is expected to simply accept a final "predicted" accident value under each scenario.

Under Vehicle Exposure (pages 4.2-17 and 4.2-18), the text makes reference to "eleven factors" listed in Section 4.2.2.1, an apparent reference to the eleven conditions for possible grade separation, but fails to explain the relevance of those factors to the exposure analysis. It is also unclear whether SEA's "Vehicle Exposure" measure is logically equivalent to that used for rail/rail crossings, or another type of measurement. The DEIS further identifies a threshold of 1,000,000 "exposure factor" as "suggested by FHWA guidelines," but fails to identify the actual origin of that figure, or explain the implications of exceeding it.[60]

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[59] *See* DEIS, Table 4.2-11.

[60] Under the Accident Prediction subsection of 4 2.2.3 (page 4.2-17), as well as in the rail/rail crossing analysis, the combination of the EJ&E results with the CN results is irrelevant. As

Independent calculations of predicted accidents at rail/road at-grade crossings lead to results that are substantially higher at some of the crossings within Barrington compared to the values included in the DEIS. The independent analysis utilized the same methodology indicated in the DEIS, as well as comparable traffic data. Differences are indicated below for 3 crossings.

Crossing	Predicted Accidents for Proposed Action		
	DEIS	Recalculated	Difference
260514W – NW Highway	0.0494	0.0801	62% higher
260515D - Hough Street IL 59 & 63	0 0387	0.0554	43% higher
260516K - Lake Cook Road	0.0347	0.0432	24% higher

d. Hazardous Materials

As a threshold matter, Section 4.2.5.4 relies on a "key train"[61] concept that the U.S. Department of Transportation previously expressed concern about in its comments on the Conrail DEIS.[62] DOT was concerned that the Board would be implementing a separate regulatory regime based on what are otherwise voluntary standards. DOT's regulations for transporting hazardous materials were developed over many years based on extensive research and the rulemaking process. The imposition of the key train concept would be arbitrary and would conflict with well-established regulations.

In addition, the discussion regarding the Proposed Action on pages 4.2-36 through 4.2-38 appears to try to marginalize the effect of increased risk for hazardous material spills along the

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these are two distinct corridors, a benefit for the CN line does not offset an adverse impact for the EJ&E Line. Combining these values implies a connection that does not exist, and is misleading to the reader.

61 *See* DEIS, 4.2-31, n 16.

62 *See* US DOT comment letter, Nancy McFadden, General Counsel (Board filed February 2, 1998) (Proposed Conrail Acquisition Final Environmental Impact Statement, Volume 6A, Finance Docket No. 33388, May 1998).

EJ&E Line. This includes an implication that increased risk is 'more ok' along the EJ&E Line because fewer people live in the census blocks that are located along the EJ&E Line, as compared to the people living in the census blocks along the CN line (it should be noted that 'fewer' is not the same as 'few' – the DEIS still identifies over 300,000 people living along the EJ&E Line) [63] Instead, the DEIS should simply acknowledge that increasing the amount of hazardous materials transported along the EJ&E (by a typical factor of 8 to 10) will in turn increase the risk of hazardous material spills in an area populated by over 300,000 people.

2. Transportation

a. Regional and local highway systems

The analysis of impacts on regional and local highway systems in the DEIS uses HCM *terminology*, but the roadway and grade crossing level of service ("LOS") assessments do not employ the actual HCM methodology. The multiple HCM citations are misleading and imply a precision in analysis that is not there. The departure from HCM methodology means the DEIS does not accurately measure the impact of the Proposed Action on regional and local highway systems. In the case of Barrington, the inaccuracies are glaring. Barrington's own assessment (described below) shows much greater impacts than the DEIS analysis and provides a good illustration of why the DEIS analysis is not a hard look at the adverse regional and local highway impacts of the Proposed Action.

i. The DEIS Analysis

The DEIS compares *average* daily traffic volumes to estimated daily roadway capacity. It posits an isolated and idealized crossing where the daily traffic volume flows over the crossing at a constant rate throughout the entire day. The DEIS analysis does not adequately account for

[63] DEIS, 4.2-37.

the fact that traffic volumes in settings such as Barrington vary dramatically throughout the day,[64] nor does it consider impacts to traffic flow caused by nearby intersections, adjacent railroad crossings, traffic signals, or downstream flow restrictions. The DEIS analysis of rail grade crossings has the same defects as the roadway assessment It also utilizes HCM terminology, but does not consistently employ actual HCM methods.

If SEA had used the HCM method the DEIS would have analyzed *peak hour* conditions of roadways and thereby properly accounted for variances in traffic volume. If SEA had used the HCM method the DEIS would have taken into account traffic signal characteristics within the corridor, access characteristics along the roadway, turning movement characteristics, and many other factors that capture the effects of nearby intersections,[65] adjacent railroad crossings, traffic signals, and downstream traffic flow restrictions.

The DEIS assumes crossing gates will be down 20 seconds before a train and 10 seconds after a train, based on Manual of Uniform Traffic Control Devices standards, rather than actual observation and measurement. Field observations at the crossings in Barrington indicate that the gate-down times before and after a train are substantially longer. For example, the average gate-down time before a train arrives at the Hough Street crossing is about 53 seconds, while the gate-down time after a train clears is about 20 seconds, for a total of about 73 seconds (in addition to the several minutes required for the train to pass through the crossing). Thus, the DEIS

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[64] A factor of 2 was applied to the average delay calculation in an attempt to account for the difference between the average value and the peak hour value. *See* DEIS at 4.3-6 and E-8. However, there is no documented basis for using this factor.

[65] Intersection analysis is vital because roadway operations in settings such as Barrington tend to be controlled by the operations and capacity of the intersections. Thus, it is more appropriate to assess roadway operating conditions by analyzing the LOS of intersections located along the roadway segment, as the HCM methodology does, rather than the volume-to-capacity ratio ("V/C") of the roadway itself.

materially underestimates the total gate-down time at the crossings in Barrington and perhaps over the entire EJ&E Line.

The DEIS also assumes queued vehicular traffic discharges across the tracks at a uniform rate and that the queue from one train event would entirely dissipate before the next train event occurs. Since two train events could occur close enough together that the second train blockage occurs before the queue dissipates from the first train, the resulting maximum queue could be longer than the DEIS calculated values. The DEIS does not address this reasonably foreseeable possibility.

The DEIS does not include the capacity assumptions and calculated V/C values of the individual roadway segments. It does not include assumptions regarding the spacing of train events. The queuing analysis in the DEIS does not disclose the queue storage lengths to which the calculated maximum queue lengths are applied. Due to all of these omissions, it is not possible for local agencies and interested parties to critically evaluate and determine whether the results of the LOS approach presented in the DEIS are consistent with their own assessments of existing and projected future operating conditions along these roadways.

ii. Barrington's Analysis

Faced with the flawed DEIS, Barrington undertook its own highway impact analysis in order to develop more accurate estimates of the impact of the Proposed Action on vehicle delays at crossings in the Barrington area. Barrington utilized VISSIM software (Level III, Version 5.00-08), a time step and behavior-based simulation program developed to model traffic and public transit operations. The program models individual driver behaviors and the resulting vehicle interactions to simulate actual traffic flows. Traffic and transit operations are modeled under constraints such as roadway and railway configurations, speed limits, traffic composition,

vehicle characteristics, traffic signals, transit stops, train blockages, and driver behaviors, among others.

An extensive number of measures of effectiveness can be extracted from the VISSIM output. Barrington analyzed total vehicle delay over a 24-hour period, a measure used in the DEIS to determine the extent to which highway/railway at-grade crossings are affected under the Proposed Action. Total daily delays in hours for the EJ&E Crossing of US Route 14 (Northwest Highway) and the EJ&E Crossing of Lake-Cook Road (Main Street) are summarized in **Tables 1 and 2** below.[66]

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[66] The DEIS preliminary mitigation identified IL Route 59 (Hough Street) among the roads that require mitigation due to the Proposed Action. See DEIS, at 6-18.

Table 1
24-HOUR RAIL CROSSING DELAY
6,800-FOOT TRAINS
USING DEIS TRAIN SPEED ASSUMPTIONS
(37 MPH FOR NO ACTION, 39 MPH FOR PROPOSED ACTION)

Rail Crossing	Total 24-Hour Rail Crossing Delay (hours)				
	2015 No-Action Delay[67]	2015 Scenario 1[68]		2015 Scenario 2[69]	
		Delay	Increase over No-Action	Delay	Increase over No-Action
U.S. Route 14 (Northwest Highway)	387	522	+135	491	+104
Lake-Cook Road (Main Street)	698	722	+24	738	+40

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[67] For *2015 No-Action Delay* (shown in **Tables 1 and 2**), Barrington started with machine count traffic data collected in the Fall of 2007. Because that data did not separately capture turning vehicles, Barrington used data from a July 2008 24-hour traffic count to establish turning vehicle assumptions. Barrington then applied Chicago Metropolitan Agency for Planning ("CMAP") growth projections for the Barrington area to the Barrington 2007 machine count traffic data to calculate 2015 traffic volume estimates. Barrington used a train speed of 37 mph, which is the speed assumption used in the DEIS for the No-Action Alternative.

[68] For *2015 Scenario 1*, the VISSIM model assumed 20 trains per day running randomly, except one train was placed in the AM rush hour period (7:00 AM - 9:00 AM) and one train was set in the PM rush hour period (4:00 PM – 6:00 PM). Barrington used a train speed of 39 mph, which is the speed assumption used in the DEIS for the Proposed Action Alternative. The hours of delay are the average delay calculations of 5 VISSIM model runs after excluding high and low delay results.

[69] For *2015 Scenario 2*, Barrington assumed a daily volume of 25 trains running randomly, except two trains were placed in the AM peak period and two trains were placed in the PM peak period All other calculation procedures and assumptions were the same as *2015 Scenario 1*.

Table 2
24-HOUR RAIL CROSSING DELAY
10,000-FOOT TRAINS
USING DEIS TRAIN SPEED ASSUMPTIONS
(37 MPH FOR NO ACTION, 39 MPH FOR PROPOSED ACTION)

Rail Crossing	Total 24-Hour Rail Crossing Delay (hours)				
	2015 No-Action Delay	2015 Scenario 3[70]		2015 Scenario 4[71]	
		Delay	Increase over No-Action	Delay	Increase over No-Action
U S Route 14 (Northwest Highway)	387	592	+205	636	+249
Lake-Cook Road (Main Street)	698	726	+28	791	+93

Although there are variations in the VISSIM outputs attributable to different runs of the model, the results clearly demonstrate that the Proposed Action would significantly increase hours of delay on US Route 14, IL Route 59 and Lake-Cook Road. For example, with train lengths of 6,800 feet, and 20 trains per day and two trains during the peak periods, Barrington's analysis shows that the Proposed Action would increase 24-hour rail crossing delay at US Route 14 by 135 hours per day and at IL Route 59 by 128 hours per day (*See* **Table 1**, *2015 Scenario 1*.) At 25 trains per day with four operating during peak periods, Lake-Cook Road would see an

[70] For *2015 Scenario 3*, the VISSIM model assumed 20 trains per day running randomly, except one train was placed in the AM rush hour period (7:00 AM - 9:00 AM) and one train was set in the PM rush hour period (4:00 PM – 6:00 PM). Barrington used a train speed of 39 mph, which is the speed assumption used in the DEIS for the Proposed Action Alternative. The hours of delay are the average delay calculations of 5 VISSIM model runs after excluding high and low delay results

[71] For the *2015 Scenario 4*, Barrington assumed a daily volume of 25 trains running randomly, except two trains were placed in the AM peak period and two trains were placed in the PM peak period. All other calculation procedures and assumptions were the same as *2015 Scenario 3*.

increase because of the Proposed Action of 40 hours of delay per day. (*See* **Table 1**, *2015 Scenario 2.*)

The delays are even greater under the assumption of 10,000-foot trains. The 20 trains/two in peak period results show 205 hours of additional delay on US Route 14 and 161 hours of additional delay on IL Route 59. (*See* **Table 2**, *2015 Scenario 3*) The 25 trains/four during peak period analysis shows 249 hours of additional delay on US Route 14, 118 hours of additional delay on IL Route 59 and 93 hours of additional delay on Lake-Cook Road. (*See* **Table 2**, *2015 Scenario 4.*)

As noted, the Barrington analysis used the same train speed assumptions as the DEIS. In reality, under the Proposed Action CN trains would operate at a lower average speed of 39 mph. For example, CN train operations will be governed by the absolute signal at Lake Zurich Road. An inbound 6,800-foot train stopped there will take eight to nine minutes to pass through the interlocking at Lake-Cook Road.[72] Barrington expects this to happen frequently. Thus the actual hours of delay per 24-hours period/per crossing will exceed the amounts calculated in the Barrington analysis.

In any case, Barrington's analysis shows much greater impacts on key roadways in the Barrington area than the impacts shown in the grossly over-simplified DEIS analyses. The DEIS analysis is not a hard look at the adverse local highway impacts of the Proposed Action.

b. Improper Aggregation

The difference between the EJ&E delay increase and the CN delay decrease shown in Table 4.3.3 is irrelevant.[73] As these are two distinct corridors, the decrease in delay along one

[72] *See* DEIS Appendix B, Attachment B5 at 3.

[73] *See* DEIS at 4.3-8.

corridor does not offset the increase in delay along the other corridor. Adding these values together implies a connection that does not exist, and could be misleading to the reader.[74]

c. Emergency Response

The DEIS fails to adequately analyze the Proposed Action's likely impact on emergency response services in the Village of Barrington and surrounding communities. CN's plan to reroute significant volumes of freight traffic to the EJ&E Line poses a significant threat to the quality of police, fire and EMS services provided to Barrington residents and visitors. Due to the configuration of Barrington's road network, the location of its emergency facilities and the lack of any grade-separated crossings on the portion of the EJ&E Line through Barrington, CN's proposed transaction will create prolonged blockages and increased traffic congestion at all of the EJ&E grade-crossings in or near Barrington. This will have a devastating impact on the ability of first responders to access the scene of an emergency and transport accident victims to critical care facilities in a timely manner.

In the emergency response context, a delay of minutes or even seconds often can mean the difference between life and death. The police, fire, EMS and other first responders in the Village of Barrington and surrounding communities pride themselves on their ability to respond

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[74] Also, the table appears to contain a calculation error, with the hours/year seemingly calculated by multiplying the hours/day by approximately six instead of 365. This significantly under-reports the total delay. The LOS analysis also contains several additional unsupported items:

- Page 4.3 5 and Page E-7 – A basis should be explained, or source cited, for the factor of 1.3 applied in the average delay per vehicle (Da) calculation.
- Page 4.3.6 and Page E-8- A basis should be explained, or source cited, for the factor of 2 applied in the average delay for all vehicles (Dv) calculation.
- Page 4.3.8 – A list of programmed improvements that were assumed to be in place under future analysis conditions should be provided in the DEIS.

in an expedient and effective manner to urgent situations that may occur within their jurisdictions. These emergency service personnel must rely on the local road network to reach and exit from the scene of an emergency. It is common knowledge that an injured person's chance of recovery from a heart attack or other traumatic event bears a direct relationship to the amount of time that elapses before emergency care is provided.

CN's proposal seeks to elevate its freight transit times and its own profit over the health and safety of the residents of and visitors to Barrington and CN's own employees (who would rely on local emergency responders in the event of an accident). The DEIS almost completely ignores the harmful impacts the Proposed Action would have on emergency services in Barrington and wrongly concludes that such impacts can be mitigated simply by selecting alternative access routes and health facilities.

i. Local Concerns

The Barrington Fire Department provides fire protection, emergency treatment, medical transport and other mission-critical services to the 20,000 residents and numerous visitors to the Village of Barrington and within the Barrington-Countryside Fire Protection District The Fire Department protects more than 50 square miles of territory in Barrington, Barrington Hills and South Barrington that are all intersected by the EJ&E rail line.

The Barrington Fire Department has concluded that the proposed increase in freight traffic on the EJ&E would drastically restrict its ability to maintain current levels of emergency response service in the greater Barrington community. The Fire Department has manpower and equipment strategically located at three separate fire stations in the service area. The firefighters and paramedics at these stations depend on the major arterial state highway and county roadways intersected by the EJ&E to facilitate their prompt response to emergency calls. The Proposed

Action likely will result in the blockage of all the grade crossings within Barrington for extended periods of time. Many of these crossings will be blocked simultaneously by long CN intermodal trains originating at the Port of Prince Rupert and using the EJ&E as a southern gateway to Memphis These blocked crossings and the resulting traffic backup will have a drastic impact on the ability of emergency responders in Barrington to access and depart from emergency situations since the EJ&E Line intersects the community and isolates many locations in the community from access to both EMS providers and critical care facilities. In many emergency situations, acceptable response times are measured in minutes if not seconds. SEA recognizes that the Proposed Action will have a potentially negative effect on the Hough Street crossing in Barrington. SEA fails to recognize, however, that the Proposed Action also will have a ripple effect on EMS efforts in other jurisdictions in and around Barrington.

ii. SEA's Flawed Analysis

SEA's analysis of emergency vehicle response impacts from the Proposed Transaction is flawed because of an arbitrary assumption that adversely affected facilities are limited to those within 2 miles of the EJ&E rail line. SEA's assumption excludes the only critical care facility in the greater Barrington community because Advocate Good Shepherd Hospital is just outside the 2-mile zone. SEA fails to account for the fact that Advocate Good Shepherd Hospital is the only proximate critical care facility available in certain emergency situations to those fire and police districts within Barrington (including those districts that are not in SEA's view potentially substantially affected by the proposed transaction). Instead of relying on an arbitrary assumption, SEA should have analyzed the specific geographic constraints applicable to emergency services in the Barrington area.

Access to a critical care facility is a key component of the emergency response function, and one that the SEA largely ignores in the DEIS. The grade-crossing blockages and resulting traffic congestion that would be created by the Proposed Action will severely degrade the quality of emergency response services provided in Barrington, particularly those services of the most urgent and serious nature which require shock trauma, heart resuscitation or other critical care services that only Advocate Good Shepherd Hospital can provide to Barrington residents.

SEA's analysis of these impacts also is based on other assumptions that do not account for the practical realities of emergency care services. For example, SEA assumed that delays exceeding 30 seconds could potentially cause a serious effect on emergency service response time. SEA ignores the impact that delays of less than 30 seconds could have on heart attack victims or other emergency patients where every additional second improves the chances of recovery. The inability of EMS providers to travel through grade-crossings and traffic jams caused by trains can have real life and death consequences.

SEA also seems to take comfort in the DEIS from the fact that many affected communities historically have had to adapt their emergency response activities to existing grade-crossings along the EJ&E and other rail lines. This is false comfort given the substantial change in the volume and length of train operations anticipated as a result of the Proposed Action. In addition, the existence of other rail lines through some of these communities (including Barrington) significantly compounds the problem by exacerbating blocked routes and traffic congestion. Barrington is not designed to handle the anticipated traffic volume from CN and the negative impact will be felt in critical areas such as emergency response services.

iii. Emergency Response Mitigation

SEA concluded that only 11 fire and emergency service providers near the EJ&E rail line would experience substantial effects as a result of the Proposed Action. In discussing its possible

mitigation recommendations, SEA initially refers to five "voluntary mitigation measures" proposed by CN that SEA claims would address emergency service delays. The first (VM 17) relates only to two crossings in Joliet and therefore would have no impact on the delays that would be experienced in Barrington. The second (VM 18) is a loose promise by CN to "support" efforts by municipalities and counties to secure state funding for grade separations that meet Illinois DOT criteria. This is largely an empty gesture because there is no available state or local money to pay for the cost of such grade separations and CN's moral support has no economic value. CN highlights the fact that, as part of this supposed voluntary mitigation measure, it will contribute "the statutorily required amount of funding" (typically 5%) to any such grade separation project. Once again, CN tries to create the illusion that it is making a sacrifice to mitigate adverse impacts, even though CN is required by law to make any such minimum contribution. The reality is that, unless the Board requires CN to provide all of the capital necessary to fund the construction of grade separations in Barrington, this voluntary mitigation measure is worthless.

The other three voluntary mitigation measures proposed by CN to address emergency vehicle delays also would have little impact on the degradation of emergency response services that would be caused by the Proposed Action. SEA fails to explain how CN's offer to make Operation Lifesaver programs available to communities and schools (VM 23) would have any significant mitigative impact on emergency response delays. SEA also fails to explain how CN's offer to notify local emergency response providers about crossings blocked by stopped trains for "significant periods of time" or about real-time train locations (VM 21 and 22) would mitigate the fundamental problem – significant delays to emergency response vehicle access as a result of frequent train crossings and resulting traffic congestion. There are no realistic alternative routes

to consider for getting to Advocate Good Shepherd Hospital without being blocked at a grade-crossing and thus such notice will not help solve the delay issue during a crisis.

In addition to listing CN's voluntary mitigation, SEA invited public comment on seven possible strategies that it has proposed to mitigate anticipated delays to emergency services The option of merely accepting CN's voluntary mitigation offer is unacceptable for the reasons outlined above. The other suggestions do not address the fundamental problem with emergency response delay for several reasons. Most importantly, SEA's failure to include Advocate Good Shepherd Hospital in its analysis and within the scope of the affected facilities makes all of these proposed mitigation strategies inadequate. Requiring CN to fund training and simulation for up to 3 years following implementation of the Proposed Action would not increase response times from those many areas of Barrington that are separated from Advocate Good Shepherd Hospital by EJ&E grade crossings.

Many of the affected communities already have Cooperative Agreements in place among fire and EMS departments, but those arrangements do not solve the problem of impaired access to the only proximate critical care facility serving the Barrington region. In addition, depending on exigencies outside the control of any emergency service provider, the manpower and equipment of one unit may be unavailable to deal with an emergency situation that must be addressed by a unit in a less advantageous location relative to the EJ&E. Moreover, SEA provides no analysis of whether specific operational or management improvements by CN could mitigate the likely delays that will be experienced by Barrington's emergency service providers. In addition, SEA fails to recognize that constructing a second critical care facility in the Barrington region in location accessible to residents cut off from Advocate Good Shepherd Hospital as a result of the Proposed Action would be prohibitively expensive.

d. Student Transportation

The DEIS analysis of regional and local highway systems also fails to address the needs of the Barrington area student population. The Barrington Community Unit School District 220 serves a student population of 9,200 students from 72 square miles. Within the school district, Barrington has one high school, two middle schools, and four elementary schools along with one parochial school (located in Barrington and serving kindergarten through eighth grade). Due to the large geographical area covered by the school district, many students need to be bused to and from school. Barrington Transportation, the school bus company providing transportation for Barrington students, reports crossing the EJ&E Line 840 times per day. Sixty (60) percent of the school buses cross the EJ&E Line several times per day during their morning and afternoon trips. The DEIS does not analyze the extent to which the substantial increase in train traffic planned under the Proposed Action will have a harmful effect on student transportation and safety, especially given the number of school buses crossing the EJ&E Line on a daily basis.

Barrington High School is located approximately 600 feet west of the EJ&E Line, right near the Lake Cook Road grade crossing. Barrington High School is the only high school in the school district and as a result serves the entire Barrington Community. It has a population of over 3,000 students and staff, many of whom cross the EJ&E Line twice per day on their commute either by vehicle or on foot. The DEIS does not contain any meaningful analysis of the congestion and safety concerns raised by the proximity of Barrington High School to the Lake Cook Road crossing.

3. Socioeconomic Harm

The DEIS also fails to adequately consider and analyze the Proposed Action's substantial economic and business harms in Barrington and its surrounding communities. The enormously increased rail and vehicular congestion, as well as related noise and vibration impacts, caused by

the Proposed Action would in turn result in numerous substantial economic injuries to the Barrington Community that must be considered as part of the EIS.

Due to the location of the EJ&E Line and its route directly through the center of Barrington, the projected increases in rail traffic under the Proposed Action would drastically increase delays at crossings and correspondingly reduce the ability of local workers to travel through the area to reach their jobs. Those delays as well as the significant noise and vibration impacts of the Proposed Action will cause prospective shoppers to be less interested and able to engage in economic activities in the downtown area. As a direct and foreseeable consequence of these impacts on both the local workforce and local consumers, businesses in the area may seek to relocate outside of Barrington.[75] The potential flight of local businesses coupled with the other impacts of the Proposed Action will further result in a corresponding decrease in sales tax revenues, a drop in real estate values and corresponding real estate tax revenues, and an increase in vacancies throughout the downtown area. To the extent that businesses relocate out of the Barrington area, they would also take with them numerous local jobs, adding further damage to the local economy.

4. Environmental Justice

The DEIS's analysis of environmental justice is also flawed In particular, the environmental justice analysis (1) uses a methodology that improperly compares population groups; (2) is difficult to follow and verify, in contravention of CEQ requirements; (3) fails to explain the buffers used to count different affected populations; (4) fails to explain the impact

[75] For example, Barrington conducted a survey of area businesses in order to gauge the anticipated impact of the Proposed Action on the area economy. Over 100 businesses responded to the survey, and approximately 75% of those businesses expected the Proposed Action to negatively impact their revenue. 18 businesses would relocate out of the area, and another 45 would consider relocating. Less than half of the responding businesses would try to not relocate if the Propose Action were approved.

thresholds used to determine whether environmental justice populations would bear disproportionate high and adverse impacts; and (5) contains analytical and data inconsistencies within the environmental justice sections and between the environmental justice sections and the rest of the DEIS. Moreover, in contravention of the requirements of the CEQ regulations, the analysis is not written in plain language and does not use maps or graphics to display information. Alarmingly, the DEIS environmental justice sections also appear to have been written without consideration for the reader, particularly the affected environmental justice communities. Consequently, the Board, other agencies, elected officials, and the public cannot use the DEIS environmental justice analysis to determine whether environmental justice populations would bear disproportionate high and adverse impacts from the Proposed Action.

a. Inappropriate Methodology

In Section 4.7.3.1, the DEIS compares the absolute amount of affected environmental justice census block groups with the effected non-environmental justice census block groups. *Id.* The standard practice typically used in an EIS is to compare the relative percentages of the affected environmental justice block groups with the percentage of affected non-environmental justice census block groups. For example, if 23 of the 26 low-income block groups and 35 of the 100 non-low-income block groups are affected by the Proposed Action, the absolute number of non-low-income block groups is higher and would lead to the conclusion of no disproportionate impact. However, the relative percentage shows that almost all of the low-income block groups are affected compared to a lower number of non-low-income block groups. Therefore, a disproportionate impact could occur where the impacts are high and adverse. The appropriate approach used in most EISs is to compare the percentage of the affected population that is minority or low-income to the percentages for those populations in the surrounding area, e.g., city, county, or state.

Similarly, in the Socioeconomic section of the DEIS (Section 3.6), demographic data is presented by county and city.[76] However, the Environmental Justice section data is presented by tract and census block group number, which does not easily correspond to a city or county. This data is difficult to cross-reference with the analysis conducted in previous sections. None of the environmental justice sections (Section 3.7, 4.7, and Appendix I) contains a map showing the location of the census block groups and their proximity to the EJ&E Line as SEA has done in prior NEPA documents.[77] Nor do these sections contain a map showing the potential impacts overlain on the environmental justice communities. Maps would make the information presented in the DEIS more understandable and meaningful.

Lastly, it is unclear why different buffer zones were selected to delineate the affected populations. A brief, incomplete description is provided at the end of page 3.7-1 stating that the buffer zones relate to air quality, noise, and hazardous materials releases. Yet these distances are not explicitly used in the related air quality, noise, and hazardous materials analyses.[78] Further explanation is needed to articulate the rationale behind this inconsistent determination.

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[76] In accordance with EPA's *Final Guidance for Incorporating Environmental Justice Concerns in EPA's NEPA Compliance Analyses* (April 1998), national decennial census data should be validated against data from state and local governments, community groups, and commercial database firms. There is no evidence in the DEIS that the census data used was validated with any outside sources. SEA needs to validate this data, since the DEIS makes note of the rapid population growth experienced by some communities along the EJ&E Line.

[77] *See, e.g.*, Draft EIS, San Jacinto Rail Limited Construction Exemption and the Burlington Northern and Santa Fe Railway Company Operation Exemption – Build-out to the Bayport Loop near Houston, Harris County, TX, STB Finance Docket No. 34079, pp 4-83 to 4-90 (Board served December 6, 2002); Environmental Assessment, Illinois Central Railroad Company – Construction and Operation – in East Baton Rouge Parish, Louisiana, STB Finance Docket No. 33877, p. 3-31 (Board served July 20, 2001).

[78] DEIS Sections 4.9, 4.10, and 4.2.5.

b. Opaque Selection of Criteria and Application of Methodology

The DEIS and its appendices do not advance reasoning in support of the selection of the environmental justice criteria. The DEIS simply asserts that SEA "calculated the minority and low-income population percentages for each of the five counties in the study area" and "then added 10 percent to each of the calculated percentages.[79]" The addition of 10 percentage points to each county's minority and low-income population percentage appears arbitrary and misleading and may dilute the potential impacts.

If the environmental justice criteria were lowered by that 10 percent, an additional 8 census block groups would qualify as minority communities and 23 block groups would meet the revised low-income criteria. This represents a doubling of the number of census block groups classified as environmental justice communities based on income status (*i e* , the DEIS identifies 26 low-income census block groups under the current selection criteria). An explanation and rationale is needed to clearly describe how SEA developed the selection criteria. In addition, Section 4.7.1.3 states that a certainty of 50 percent means that the impacts are disproportionate. The DEIS fails to provide a rationale for the 50 percent threshold. The threshold appears arbitrarily selected. As with the environmental justice criteria, the selection of this threshold may have a dramatic impact on the findings. SEA must provide a clear and logical explanation for selecting these thresholds and criteria in accordance with CEQ's guidance.

In addition to the non-disclosure issues identified above, the DEIS provides an incomplete description of the methodology for the environmental justice analysis. The complete methodology is not outlined in a central location (*i.e.*, Appendix I) Instead, elements of the analysis are scattered throughout the various sections making the analysis difficult to follow. For

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[79] DEIS, 3.7-2.

example, the Appendix I, Environmental Justice Impacts Analysis, which is intended to provide a detailed explanation of the analysis, omits a description of why the percentage of minority populations in the counties is capped at 50 percent.

c. Violation of CEQ Standards

With regard to the total absence of any guiding maps or graphics regarding the affected census block groups, the CEQ's regulations explicitly require that environmental impact statements "use appropriate graphics so that decision makers and the public can readily understand them."[80] The DEIS is patently deficient in that regard.

Furthermore, the CEQ's *Environmental Justice Guidance Under the National Environmental Policy Act* states that a conclusion of no disproportionately high and adverse human health or environmental impacts on environmental justice communities should be supported by sufficient information and presented as concisely as possible.[81] The DEIS also does not approach this standard.

The DEIS states that "further analysis revealed that the high and adverse train noise impacts are not disproportionately borne by minority or low-income environmental justice populations.[82]" That "further analysis" is not included in the environmental justice analysis appendix or in the Sections 3.7 or 4.7 narratives. Appendix I should contain a detailed description of this "further analysis." Similarly, in Appendix Section I.2.3, Page I-3, the DEIS states that a "statistical analysis" was conducted, yet the DEIS does not disclose the statistical methodology used; therefore, the results cannot be validated or verified. The DEIS must clearly

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[80] *See* 40 CFR 1502.8.

[81] *Id.* at 15 (available at http://www.epa.gov/compliance/resources/policies/ej/ej_guidance_nepa_ceq1297.pdf.

[82] DEIS, Appendix I 2 3, I-4.

identify and describe the statistical test used to determine the marginal probability shown in Tables I.2-2 and I.2-3

d. Noise Impacts on Environmental Justice

In Appendix Section I.2, SEA states that 26 census block groups meet the low-income criteria, but Table I.2-3 indicates that there are 67 low-income block groups expected to experience noise impacts ranging from "low to moderate" to "high to very high." This suggests that the calculations contained within the table or the numbers presented in the text of section I.2 are erroneous; therefore, the conclusion of no disproportionate impacts on low-income census block groups could be invalid. Additionally, Table I.2-2 shows the actual train noise impacts on minority census block groups while Table I.2-3 shows expected train noise impacts on low-income census block groups. Clarification is needed to explain why actual train noise could not be calculated for the low-income census block groups. Furthermore, Tables I 2-2 and I 2-3 show marginal probability of noise impacts. However, further explanation is needed to relate these marginal probabilities to expected and significant impacts.

SEA's noise impact scale is also arbitrary and inconsistently applied. Section 4.7 1.2 describes the scale values as a range from "0" or "no impact" to "5" or "high impact," as follows:

- <65 dBA Ldn = 0 (no impact)
- 65-69 dBA Ldn = 3 (low impact)
- >70 dBA Ldn = 5 (high impact) [83]

Yet the noise impact analysis in Section 4.10 of the DEIS does not use these impact scores, but includes in its analysis incremental community noise increases of 3 dBA or more.[84]

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[83] *Id.*, 4.7-2.

[84] DEIS, 4.10-2.

Moreover, in prior EISs created by SEA, impacts to noise receptors experiencing greater than 65 dBA Ldn and an increase of 3 dBA have been considered adverse.[85] Yet in this environmental justice analysis, those same impacts are described as either "low" or "high."

Appendix Tables I.2-2 and I.2-3 also introduce new impact terms and scores that do not correlate to the text in Section 4.7. These new terms and scores are "moderate" or "4" and "very high" or "6".[86] Specifically, Appendix I, Table I.2-2 defines "low to moderate impact" as scoring in the range of 0-3. If one accepts the arbitrary scoring mechanism defined in section 4.7.1.2, it seems that this should read "no to low impact." Similarly, Appendix I, Table I.2-2 defines "high to very high impact" as scoring in the range of 4-6. Yet the scoring mechanism defined in section 4 7.1.2 does not allow for a score of either 4 or 6. On page I-3 of Appendix I, it states that a score greater than 4 equates to a "high and adverse impact." These glaring inconsistencies are confusing to the reader and potentially mask the negative environmental justice impacts that could be created by this project.[87]

In short, the noise impacts to environmental justice communities are internally inconsistent, utilize varying and self-contradictory terminology, and need to be re-calculated using 65 dBA Ldn as the criteria for adverse impacts. The EIS should also include a map(s) showing the locations of the affected communities as required by the pertinent CEQ regulations

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[85] *See, e.g.*, Draft Supplemental EIS, *Tongue River Railroad Company Inc. – Construction and Operation – Western Alignment*, STB Finance Docket No. 30186, p. 4-151 (Board served October 15, 2004); Final EIS, *Rail Alignment for the Construction and Operation of a Railroad in Nevada to a Geologic Repository at Yucca Mountain, Nye County, Nevada*, DOE/EIS-0369, p. 4-267 (June, 2008) (with STB as cooperating agency).

[86] *See* Appendix I, I-4.

[87] In addition, the DEIS again does not contain a map illustrating the correlation between potential noise impacts and environmental justice communities. This failure makes it impossible for the affected communities to understand how they could be affected by the proposed transaction.

e. Safety and Delay Impacts on Environmental Justice

The DEIS also fails to explain the apparently arbitrary environmental justice impact criteria for safety and delay. Appendix I states that "impacts to census block groups are based on the number of at-grade crossings that experience either significant safety or delay impacts."[88] The DEIS defines high and adverse effects as occurring where a census block group is affected by three or more at-grade crossings with significant safety or delay impacts.[89] DEIS Section 4.7.1.2 sheds further light on the impact criteria by indicating that census block groups with one or less crossings with significant safety and delay impacts represent a "low impact" and two crossings would indicate a "moderate impact."

There is no explanation of why or how these numbers of crossings relate to the level of environmental justice impact experienced by affected communities. The grade-crossing impact analysis in Sections 4.2 and 4.3 of the DEIS does not use this impact criteria. According to Section 4.7.3.1, ten environmental justice census block groups would experience safety or delay impacts versus seven non-environmental justice census block groups. The use of the arbitrary impact criteria ensures that this impact ratio does not meet SEA's definition of high and adverse.

f. Lack of Air Quality Consideration at the Census Block Level

The environmental justice sections of the DEIS contain no analysis of air quality impacts and no analysis of air toxics or hot spot emissions and their potential impacts on environmental justice communities. In the Air Quality section of the DEIS, SEA determined that the impacts relating to the increased activities at the Joliet and Kirk rail yards are offset by the decrease in

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[88] DEIS, Appendix I, I-3.

[89] DEIS, 4.7-2.

activities at other CN rail yards in the Chicago area.[90] This assessment is conducted at the regional level, which is not the appropriate scale for an air toxics analysis or environmental justice analysis. From the perspective of individual census block groups, the additional activities at the Joliet and Kirk rail yards will increase air quality emissions in areas around the rail yards. SEA should conduct a hot-spot air quality analysis to include NOx and $PM_{2.5}$ of increased activity at the Joliet and Kirk rail yards and fully disclose the potential environmental justice impacts and health impacts that may result from the proposed transaction. Diesel particulates are a priority mobile source air toxic, yet are not analyzed in the environmental justice section. An analysis of the air quality impacts on the adjacent neighborhoods should be completed to determine whether these communities would be exposed to high and adverse impacts that are disproportionate.

5. Energy

The energy analysis in the DEIS contains two estimates of fuel use supplied by CN. The lower estimate of fuel use, which is 3.5 times less than the higher estimate, is based on an unsubstantiated claim by CN and is used in the DEIS to reach a conclusion that the Proposed Action would cause only a small increase in fuel use. However, the DEIS fuel use estimates fail to take into account the idling of trains on the EJ&E Line. The DEIS finding of an overall increase in fuel use (over 700,000 gallons per year) is contrary to CN's claim of improved efficiency.

Section 4.8.3 (Energy Use and Energy Efficiency) instructs the reader to "See Section 4.9.1.1, Operational Air Emissions Methodology for a detailed discussion of the fuel use data" [91]

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[90] DEIS, 4.9-25

[91] DEIS, at 4.8-2.

The Operational Air Emissions Methodology indicates that the DEIS provides two sets of emissions estimates. One is based on the original, published fuel used estimates (referred to as the "original estimates" throughout the DEIS) and the other is based on supplemented fuel use information submitted by the Applicants in their May 23, 2008 filing (referred to as "revised estimates").

The May 23, 2008 filing contains an exhibit with data that indicate a much lower change in operational fuel usage than previous estimates, but these numbers are not substantiated to the degree that the original estimates were by Exhibit C in the Applicants' February 15, 2008 filing. In the May 23, 2008 filing, only brief assumptions are provided to explain the changes, but no data are provided to verify the validity of the revised fuel use information.[92] According to the Energy Use Caused by Proposed Changes in Rail Line Operations section of the DEIS (Section 4.8.3.1), "The net change in energy use caused by proposed changes in rail line operations was developed based on a comparison of current and projected annual fuel use changes on the CN and EJ&E rail line segments."[93] Additionally, SEA also considered fuel use changes for other carriers operating on the CN Rail Line and EJ&E Rail Line segments. Finally, SEA "considered the change in fuel use resulting from reduced idling time by CN trains (Applicants 2008j)".[94] This claim regarding the methodology for fuel use is misleading, as all of the fuel use information came directly from the unsubstantiated numbers provided by Exhibit A in CN's May 23, 2008 filing and SEA does not appear to have conducted an independent review.

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[92] DEIS Appendix Q, Q4, p. 311.

[93] DEIS, 4.8-2.

[94] *Id.*

In addition, the apparent assumption in the revised fuel data is that there would be no change in fuel used for current EJ&E and other trains using the EJ&E rail line as a result of the proposed action (CN filing from May 23, 2008). From the way that the fuel consumption is categorized by the applicant, it is apparent that the DEIS uses decreased idling time (of both CN and other trains) on CN and other lines to reduce the amount of fuel used. However, the data provided by CN – and consequently used in the DEIS for fuel consumption and air quality analysis – fails to provide an accounting for changes in fuel consumption that would result from changes in idling time by EJ&E and other trains on the EJ&E Line. Based on the delay information presented in the Rail Operations analysis it would seem that delay on the EJ&E Line would increase for both EJ&E and other trains, thus increasing their fuel use and air emissions.

The conclusion about impacts to Energy in the DEIS is that "[t]he fuel savings would substantially offset the fuel use increase by CN but not entirely, therefore, there would potentially be a fairly small increase in fuel use overall."[95] This is an extremely vague and misleading conclusion when the DEIS claims an annual fuel use increase of 723,684 gallons in 2015 or 2,569,889 gallons in 2015 under the original estimate.[96] This is contrary to CN's claims of the Proposed Action improving fuel use efficiency in the Chicago area.

6. Air Quality and Climate

The DEIS's air quality analysis contains a number of significant errors and omissions, and relies on an opaque methodology that makes meaningful review difficult **Foremost among these problems is the fact that the air quality analysis includes a huge, unsubstantiated decrease in air emissions, the effect of which converts the proposed action from one that**

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[95] DEIS, 4.8-7.

[96] *Id.*

was initially projected to far exceed the threshold for threatening metropolitan Chicago's efforts to meet attainment compliance under the Clean Air Act into an action that conveniently manages to barely avoid that threshold. In so doing, the analysis also omits the air emissions from rail yards, and fails to analyze emissions of localized air toxics from rail yards and the main line track.

Moreover, the DEIS uses the wrong factors to calculate air emissions from idling locomotives, which could underestimate the localized health threats from air toxics.

Finally, the analysis of emissions from idling locomotives is difficult to follow and fails to explain how the emissions were derived. The inadequacy of the analysis is also affected by the fact that it does not seem to take into account the results of the rail operations analysis, which indicates that the EJ&E Line would reach capacity by the fifth year of operation. Similarly, the DEIS's overarching premise of reduced locomotive idling on the CN lines is difficult to verify when parts of the DEIS indicate reductions in traffic down to 0 – 2 trains per day and other parts indicate that many passenger trains and an untold number of other carriers' freight trains will continue using those lines.

a. Nonattainment under the Clean Air Act

The DEIS states that NO_x, an ozone precursor, is the "criteria pollutant of greatest concern with respect to the Proposed Action.[97]" The DEIS also states that "SEA used the General Conformity emissions thresholds (100 tons/year for all affected pollutants)" for the purposes of determining whether mitigation should be considered to minimize emissions, including of NO_x.[98] In other words, projects with emissions above 100 tons/year could threaten

[97] DEIS, 4.9-10.

[98] DEIS, 4.9-1, 4.9-10.

metropolitan Chicago's efforts to achieve compliance with Clean Air Act standards designed to protect human health.[99] In addition to contributing to adverse health effects, failure to reach attainment compliance can jeopardize Federal highway funds and trigger other Federal sanctions.

For NO_x, the original net change in emissions was an increase of 374.1 tons/year, well beyond the 100 tons/year standard SEA adopted as a trigger for mitigation purposes [100] However, a review of the Operational Air Emissions Methodology demonstrates that the DEIS contains two sets of emissions estimates (1) one based on the original, published fuel used estimates (referred to as the "original estimates" throughout the DEIS), which produced the original 374.1 tons/year projection, and (2) a second, revised estimate based on supplemented fuel use information submitted by the Applicants in their May 23, 2008 filing (referred to as "revised estimates").[101] The revised estimates reduce this number to 95 8 tons/year, conveniently below the 100 tons/year conformity threshold established by SEA.[102]

As explained in our comments on the Energy analysis in the DEIS, the exhibit attached to the May 23, 2008 CN filing that contains the data indicating a much lower change in operational fuel usage than the original estimates does not substantiate that information to the degree that the original estimates were by Exhibit C in the Applicants' February 15, 2008 filing In the May 23, 2008 filing, brief qualitative assumptions are provided to explain the changes, but no data are provided to verify the validity of the revised fuel use information [103] CN simply asserts in a

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[99] DEIS, 4.9-2.

[100] DEIS, 4.9-12, Table 4.9-11.

[101] DEIS, at 4.9-3; DEIS Appendix Q, Q4, pp. 307-309.

[102] DEIS, 4.9-12, Table 4.9-12.

[103] DEIS, Appendix Q, Q4, 307-309.

cursory fashion the manner in which it performed its various delay and fuel use calculations (including reliance on circa-2006 data), and appends a single page of information dictating to SEA the results of CN's estimates without additional detail.[104] It is inappropriate for SEA to simply adopt CN's revised estimates whole cloth without independent review and confirmation, particularly where CN provides little detail as to how that data was produced or how it may be verified, and the resultant revised data conveniently avoids the 100 tons/year conformity threshold.[105]

In addition, the apparent assumption in the revised fuel data in CN's May 23, 2008 submission is that there would be no change in fuel used for EJ&E and other trains using the EJ&E Line as a result of the proposed action.[106] From the way that the fuel consumption is categorized by CN in its submission, it is apparent that the DEIS assumes decreased idling time (of both CN and other trains) on CN and other lines to reduce the amount of fuel used. However, the data provided by CN - and consequently used in the DEIS for fuel consumption and air quality analysis – fails to provide an accounting for changes in fuel consumption that would result from changes in idling time by EJ&E and other trains on the EJ&E Line. Based on the delay information presented in the Rail Operations section[107] it seems likely that delay on the EJ&E Line would increase for both EJ&E and other trains under the Proposed Action, thus

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[104] *Id.* at 311

[105] Contrary to the implication in the DEIS, at 4.9-3, that CN only prepared the revised estimates at the request of SEA, Information Request No. 4, Item 8 (April 14, 2008) clearly indicates that SEA sought the revised estimates from CN only after learning that CN was "updating" its original estimates to include a "full consideration of the reduced idling time for the post-transaction scenario." DEIS, Appendix Q, Q4, at 300.

[106] DEIS, Appendix Q, Q4, at 300.

[107] DEIS, Section 4.1.

increasing their fuel use and air emissions. Significantly more transparency is needed to explain how the revised estimates were derived.

b. Locomotive Emissions Factors

Another flaw in the DEIS relates to the use of locomotive emissions factors in the air quality analysis. As described in the DEIS, it appears that one set of locomotive emission factors was used for both moving and idling trains.[108] However, locomotive emission factors vary greatly by duty cycle. For example, the emission factors the EPA used in their 1997 emissions rulemaking are 30%-100% higher for switching cycle compared to line-haul cycle on a grams/gallon basis.[109] Switching involves a higher proportion of idling than line-haul operation. The DEIS fuel use analysis also indicates that the proposed action would result in relatively large changes in locomotive idling However, the DEIS emission analysis is not sensitive to changes in idling versus moving operations, but only to overall fuel usage. As a result, the DEIS analysis overstates total regional emissions but would understate any localized (hot-spot) impacts due to locomotive emissions. In short, the analysis should have used two or more sets of emission factors to differentiate among the emission characteristics of different locomotive operations.

c. Lack of Transparency in Analysis

The discussion of how locomotive emission factors were derived is overly condensed and perfunctory.[110] The DEIS should provide the relevant data from the cited (1) "Table 9 of a technical highlight document for the 1999 locomotive rule"; (2) "yearly emissions from the RIA for the 2008 rule"; and (3) "yearly emissions from the RIA for the 1997 rule". The DEIS should

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[108] DEIS, 4.9-4.

[109] *See* Environmental Protection Agency, *Technical Highlights – Emission Factors for Locomotives*, EPA420-F-97-051 (December 1997), Table 3.

[110] DEIS, 4.9-4.

also show how the final emission factors were calculated. No additional information can be found in Appendix K of the DEIS, where sections K.2 and K.2.1 Operational Air Emissions Methodology appears to be exactly the same as section 4.9.1 Air Quality Methodology.

Furthermore, the explanation in section 4.9.1.2 is unclear as to how load factors and in-use adjustment factors are accounted for in the analysis. Since these variables must be accounted for but are not identified explicitly in the equations, they presumably were included as adjustments either to annual unit hours (H) or emissions factors (EF). SEA should clarify these points in section 4.9.1.2 and provide the values of the load factors and in-use adjustment factors in Appendix K.

Other indicia of the lack of necessary transparency in the DEIS include.

- The air emissions analysis in section 4.9.3.1 omits air toxics entirely. SEA needs to justify this omission or include the appropriate analysis.
- Emissions from trains that cause the delays at the highway/rail at-grade crossings could affect local pollutant concentrations, but are not addressed in the hot-spot analyses in section 4.9.3.1. The DEIS also fails to address the potential for NOx or $PM_{2.5}$ hotspots.[111] The DEIS should include this analysis as SEA has done in other EISs.[112]
- In addition, the potential for hotspots at locations with a heavy volume of moving trains and/or idling trains (e.g., the rail yards) is not addressed in section 4.9.3.1. The DEIS should include this analysis.
- Diesel particulate matter is a priority MSAT but is not addressed in the hot-spot analyses presented in section 4.9.3.1. The DEIS should include this analysis.

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[111] DEIS, 4.9-16, 17.

[112] *See* Draft EIS, *San Jacinto Rail Limited Construction Exemption and the Burlington Northern and Santa Fe Railway Company Operation Exemption – Build-out to the Bayport Loop near Houston, Harris County*, TX, STB Finance Docket No. 34079, pp. 4-39 to 4-40 (Board served December 6, 2002)

d. Climate Change

The DEIS also gives exceedingly short shrift to the issue of climate change attributable to the Proposed Action. The DEIS seems to question whether human sources of GHGs are really much of a concern. Many Federal agencies are developing approaches to analyzing the effects of their projects on climate change and they are doing so in their cumulative impacts analyses. Their EISs acknowledge that while any one project's contribution to climate change may be small, they are contributing to a significant cumulative effect. Yet this DEIS has a cumulative impacts section that simply restates the direct impacts of the GHG emissions and fails to actually discuss the cumulative impacts. Moreover, the GHG emissions are based on flawed energy calculations.

Specifically, the DEIS includes both "original" and "revised" estimates for fuel use and states that an additional 723,684 gallons of fuel (or 2,569,889 gallons under the original estimate) would be used under CN's proposed action in the year 2015 alone. Contrast this with the CN claims of the project improving fuel use efficiency in the Chicago area. The reality is somewhat different. All this extra fuel consumption leads to emissions of GHGs, a subject that is given short shrift in the DEIS The DEIS contains statements like "While the level of human vs. natural contribution to global climate change is the subject of much debate ..."[113] The DEIS contains other examples of questioning whether human sources of green house gases are really much of a concern by stating that mankind's emissions of carbon dioxide are a minor fraction of the total carbon dioxide in the atmosphere.[114] The DEIS states that there are many other factors affecting climate change and that carbon dioxide is a minor contributor to the greenhouse effect

[113] DEIS, 3.9-11.

[114] DEIS, 4.9-30.

in comparison to water vapor and clouds. The DEIS also states that "concerns expressed in recent years are that mankind's emissions of greenhouse gases may warm the climate, possibly affecting precipitation patterns as well."[115]

The DEIS' dismissive approach to climate change is out-of-date and out of step with the position of the U.S. Government and overwhelming, worldwide scientific consensus.[116] President George W. Bush recently pronounced that "the United States takes this issue seriously" and would be supporting the goal of reducing greenhouse gas emissions by 50 percent by 2050.[117] There have been a series of intensive and extensive analyses conducted by the Intergovernmental Panel on Climate Change ("IPCC"), (the scientific body tasked by the United Nations to evaluate the risk of human-induced climate change), the United States Climate Change Science Program ("USCCSP"), and many other government, non-government organization, and industry-sponsored programs. The IPCC recently asserted that "[m]ost of the observed increase in global average temperatures since the mid-20th century is *very likely* due to

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[115] DEIS, 4.9-31 (emphasis added).

[116] Courts have also recognized the importance of regulating GHGs. *See, e.g., Center for Biological Diversity v. National Highway Traffic Safety*, 538 F.3d 1172, 1179 (9th Cir 2008) ("Petitioners' evidence demonstrates, overwhelmingly, the environmental significance of CO2 emissions and the effect of those emissions on global warming. How NHTSA can, on remand, prepare an EA that takes proper account of this evidence and still conclude that the 2006 Final Rule has no significant environmental impact is questionable."); *Mid States Coalition for Progress v. STB*, 345 F.3d 520, 550 (8th Cir. 2003) (irresponsible for Board to approve transaction without considering potential increased sulfur dioxide emissions).

[117] "U.S. Prepared To Cut Greenhouse Emissions," CNN (September 28, 2007) (available at http://www.cnn.com/2007/POLITICS/09/28/bush.climate/index.html); "Division at G-8 Over Climate Goal," NY Times (July 10, 2008) (available at http://www.nytimes.com/2008/07/10/science/earth/10climate.html?hp)

the observed increase in anthropogenic greenhouse gas concentrations".[118] In light of these statements, the DEIS's lack of emphasis on the greenhouse gas emissions issue is alarming.

What little consideration the DEIS does give to the issue is also incorrectly applied. The DEIS claims that "[a] brief discussion of climate change effects from related projects is included in [section 5.5.1] "[119] However, in the cumulative impacts chapter, the DEIS merely re-states the direct emissions of carbon dioxide that would be caused by the proposed transaction under the original and revised estimates for fuel use.[120] There is no attempt made to analyze the "incremental impact of the action when added to other past, present, and reasonably foreseeable future actions ..."[121]

Furthermore, the calculation of carbon dioxide emissions associated with the proposed transaction appears to have been based on gallons of gasoline equivalent. Since the actual impacts would be due mainly to the combustion of diesel fuel, which produces greater GHG emissions, the analysis should have based the calculation on the forecast amount of diesel fuel.

7. Noise and Vibration

The scope of the noise analysis in the DEIS is inconsistent with the Board's regulations and therefore the DEIS fails to provide full disclosure of potential noise impacts to the public. The noise analysis in the DEIS makes numerous unsupported statements and conclusions The

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[118] IPCC AR4 WG1 SPM Report (2007), *Summary for Policy Makers*, p. 10 (available at http://ipcc-wg1.ucar.edu/wg1/wg1-report.html.) The IPCC uses standard terms to "define the likelihood of an outcome or result where this can be estimated probabilistically". The term "very likely," cited in italics above and elsewhere in this section, corresponds to a >90 percent probability of an occurrence or outcome, whereas the term "likely" corresponds to a >66 percent probability.

[119] DEIS, 4.9-31.

[120] DEIS, 5-26.

[121] *See* 40 CFR 1508.7.

conclusion of the DEIS on noise, that there will not be significant adverse noise impacts, is based on *adding* noise reductions in one area to noise increases in another area. This is grossly unreasonable and, not surprisingly, unprecedented in the field of environmental noise analysis. Without any feasibility and cost analysis, SEA used a 70/+5 DNL criteria. These criteria were developed specifically for the noise contour layout, track network, and site-specific density of housing in the Conrail proceeding, and there is no reason to expect the same criteria would apply to another project where all of those factors are different by definition. SEA's repetition and application of those site-specific criteria here is arbitrary and un-scientific. SEA's noise model is over ten years old, and SEA has used much more sophisticated modeling in the intervening years to provide a more accurate prediction of affected receptors. There is no explanation for why SEA reverted to using an antiquated noise model that was tailored specifically to the Conrail proceeding.

a. Scope of Noise Analysis is Inadequate

The scope of the noise analysis in the DEIS is inconsistent with the Board's regulations. The DEIS states:

> On previous projects, SEA determined that quantifying noise-sensitive receptors in the existing and Proposed Action 65 dBA Ldn noise contour would satisfy the Board's requirements to determine noise effects (Board 1998a) Therefore, SEA's method to determine potential noise effects from the Proposed Action, including both proposed changes in rail line operations on the EJ&E Line, and proposed new connections, first identified the EJ&E rail line segments that would experience an increase of *three dBA* due to the redistribution of train traffic from CN subdivisions. On these segments, SEA quantified the number of noise-sensitive receptors in the existing and Proposed Action 65 dBA Ldn noise contours.[122]

[122] *See* DEIS at 4.10-2 (emphasis added).

If (as in this case) the rail traffic thresholds in 49 C.F.R. § 1105.7(e)(5)(i) are met, the Board's regulations require noise analysis of the entire Proposed Transaction.[123] Although the Board has attempted to short-cut this analysis in the past by employing a 3 dBA increase criterion, EPA was highly critical of the approach.[124] EPA noted that full disclosure of noise impacts requires showing the 65 DNL contours and affected receptors irrespective of the increase in noise.[125] The same is true here. Since only areas with a 3 dBA increase were analyzed, the DEIS fails to provide full disclosure of potential noise impacts to the public. Receptors should be counted within the + 3 dBA contours, irrespective of the baseline noise level.

b. Noise Analysis Has Unsupported Conclusions

The noise analysis in the DEIS makes numerous unsupported statements and conclusions. The DEIS states that "SEA ran noise models for 14 EJ&E rail line segments, six proposed connections and five CN rail lines."[126] However, the DEIS fails to provide detailed information regarding the determination of receptors for the CN rail line. The DEIS states "[t]he number of noise-sensitive receptors would decrease along all of the CN rail line segments for a total decrease of 2,738 noise-sensitive receptors in the 65 dBA Ldn contour."[127] This claim is made throughout the DEIS, but no analysis is provided to substantiate it.[128]

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[123] *See* 49 C.F.R. § 1105.7(e)(6).

[124] *See* Office of Federal Activities comment letter, Richard Sanderson, Director, (Board served February 2, 1998) (Finance Docket No. 33388, *Proposed Conrail Acquisition Final Environmental Impact Statement*, Volume 6A, Finance Docket No 33388, May 1998).

[125] *Id.*

[126] *See* DEIS at 4.10-3.

[127] *See* DEIS at ES-18.

[128] *See* DEIS at 4.10-6.

What little backup information there is on noise impacts does not help to cover for the overall lack of support for SEA's conclusions. For example, Table 4.10-5 shows a net decrease of 28 noise sensitive receptors within the DNL 65 contour for both CN-17 and CN-18, but Figure 2.2-1 shows an increase of train traffic on these lines from 1.8 to 2.0 trains per day.[129] The DEIS fails to provide an explanation for how an *increase* in train traffic results in a *decrease* in affected noise sensitive receptors.

c. Noise Analysis Has Unreasonable Aggregation

The DEIS makes an unreasonable conclusion regarding overall noise impacts. It states that:

> The net effect of noise associated with the Proposed Action is an increase of 258 noise-sensitive receptors that are predicted to experience an Ldn of 65 dBA or greater. This increase equates to roughly one additional affected receptor per mile of rail line associated with the Proposed Action. *In this context, SEA does not consider the overall increase in the number of receptors affected by noise associated with the Proposed Action to constitute an adverse environmental impact.*[130]

The concept of noise reductions in one area and noise increases in another areas in effect canceling each other out is not standard in the field of environmental noise analysis. It is akin to saying sticking your hand in a pot of boiling water will not hurt if you have your other hand in ice water. There will be thousands of new receptors that experience noise levels in excess of 65 DNL, a level which would require entire home sound insulation on an airport project.[131]

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[129] *See* DEIS at 2-18 and 4.10-6.

[130] *See* DEIS at 4.10-7 (emphasis added). *See also* DEIS at 4.10-29 ("SEA concludes that the magnitude of the net increase in noise-sensitive receptors that would be exposed to an Ldn of 65 dBA or greater due to the Proposed Action does not constitute an adverse environmental effect.").

[131] *See, e.g.*, Final EIS for the Expansion of Flying Cloud Airport, Eden Prairie, Minnesota – Federal Aviation Administration (June 2004).

SEA used a 70/+5 DNL criteria and suggests that other agencies have done the same. The DEIS says "SEA evaluated noise mitigation criteria enacted by other Federal agencies."[132] No such agencies are cited and Barrington is not aware of any federal agencies employing the 70/+5 DNL criteria. As previously noted, these criteria were developed for specifically for the noise contour layout, track network, and site-specific density of housing in the Conrail proceeding, and there is no reason to expect the same criteria would apply to another project where all of those factors are different by definition. Applying these criteria to the Proposed Action without performing rigorous feasibility and cost analysis is arbitrary and un-scientific.

8. Biological Resources

SEA has inappropriately reached the conclusion that the Proposed Action is "not likely to adversely affect" the Hine's emerald dragonfly, Karner blue butterfly, and Eastern prairie fringed orchid. SEA apparently reached this conclusion without performing field surveys of potential habitat and without obtaining substantive input from the USFWS. Instead, SEA merely relies on "mitigation" consisting of future surveys for these species. In addition, the DEIS fails to analyze potential impacts to the Indiana bat, despite USFWS expressing concern over potential impacts to this endangered species. By failing to adequately analyze potential effects on these species, and failing to disclose potential taking of threatened or endangered species to the public and the decision-maker, SEA has violated Section 7 of the Endangered Species Act and NEPA.

Section 4.11 states that only three ESA listed species could potentially be affected by the proposed action: 1) Hine's Emerald dragonfly, 2) Karner blue butterfly (IN location), and 3) Eastern prairie fringed orchid (at Proposed Griffith Connection, IN).[133] However, the USFWS

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[132] *See* DEIS at 4.10.14.

[133] DEIS, at 4.11-1 and Table 4.11-4.

field office responsible for the Illinois portion of the project informed SEA during the scoping process that it is concerned not only for the Hine's Emerald dragonfly, but also for the Eastern prairie fringed orchid [134] However, the DEIS does not address concerns the USFWS expressed regarding the Eastern prairie fringed orchid in the West Chicago Prairie, which is adjacent to the west side of rail segment EJE-12 (and is projected to carry an additional 19 trains per day). The USFWS specifically stated it was concerned that the following impacts could affect the Eastern prairie fringed orchid in West Chicago Prairie: 1) sedimentation caused by increased vibration of addition train traffic, 2) contamination of surface waters and groundwater from freight cars transporting chemicals, and 3) hydrological changes in wetlands caused by increased railroad activities.[135] Furthermore, the USFWS stated that "the combined effects of these impacts could lead to decreased water quality and increased competition from invasive plant species."

In addition, the DEIS also indicates that Mead's milkweed has been documented in the West Chicago Prairie and the Vermont Prairie Nature Preserve along segments of track that are proposed to have increased train traffic [136] Even though the USFWS letter did not indicate the presence and locations of these species, the concerns it had with the Eastern prairie fringed orchid in West Chicago Prairie would apply to these species and should be addressed. The DEIS does state in Section 6.3.11.3 that the "applicant shall survey all suitable habitats potentially impacted by the construction activity for Federal- and state- listed threatened or endangered plant species" and must consult with the appropriate Federal and state agencies if any plants are located in construction areas. However, this mitigation measure does not address the potential

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[134] *See* Letter from U.S. Fish and Wildlife Service, Chicago Ecological Services Field Office, STB Finance Docket No. 35087 (STB filed February 8, 2008) (EI-6250), at 2-3.

[135] *Id.* at 3.

[136] DEIS, Sections 3.11.8 1 and 3.11.6.4.

effects to plants outside of construction areas as outlined in the USFWS letter mentioned above. Increased rail traffic could affect these plant species as indicated by USFWS. Therefore, SEA has violated Section 7 of the Endangered Species Act by not surveying potential habitat and failing to consult (informal or formal) with the USFWS

The USFWS Bloomington, Indiana Field Office also commented on the Indiana portion of the proposed project in a letter dated 12 February 2008, in which it indicated that "[t]here are a large number of significant nature preserves and other natural areas adjacent to or in the vicinity of the EJ&E rights-of-way within Indiana."[137] One of the concerns raised in that letter, also not addressed in the DEIS, is the potential impact of the project on the federally endangered Indiana bat.[138] USFWS states that suitable summer maternity habitat may occur along the floodplain of the Little Calumet River, which is crossed by the rail just north of Griffith, IN.[139] There is no mention of the Indiana bat in the DEIS. As the USFWS has concerns about this species, those concerns should be acknowledged and addressed. If there is habitat or species present in the area, the effects of increased rail traffic could disrupt the behavior of the species. This could be an impact that would require formal or informal consultation with the USFWS depending on the magnitude of impact.

Similarly, Section 4.11.3.1 of the DEIS states that the increase in rail traffic along Segment 9B (from 18.5 to 42.3 trains per day) could increase the risk of collisions with the Hine's Emerald dragonfly, but then goes on to state that the increase in rail traffic is "not likely

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[137] *See* Letter from Fish and Wildlife Service, Bloomington Field Office, STB Finance Docket No. 35087 (STB filed February 12, 2008) (EI-5924), at 2.

[138] *Id.* at 3.

[139] *Id.*

to adversely affect the species" with appropriate mitigation.[140] There is no additional information provided to support this determination. The term "not likely to adversely affect" as defined by the Endangered Species Act would require informal consultation with the USFWS, which typically requires a Biological Assessment to be written by the proponent agency, followed by a Biological Opinion written by the USFWS. Regardless of the mitigation measures presented in Chapter 6, informal consultation with the USFWS on this issue would need to be initiated followed by a Biological Opinion from the USFWS that would determine whether there would be any jeopardy to the continued existence of the species. SEA would have to show that the impact from increased rail traffic would be insignificant and/or discountable to the Hine's Emerald dragonfly. Again, the DEIS contains no information suggesting that formal or informal consultation has been initiated on this issue. Failure to conduct informal or formal consultation with the USFWS over potential impacts to the Hine's Emerald dragonfly and present the findings in the DEIS has precluded the public's ability to comment and has violated NEPA by failing to fully disclose potential impacts.

Section 4.11.3.1 also states that the project is "not likely to adversely affect" the Karner blue butterfly and that collisions with trains due to increased rail traffic could increase.[141] The DEIS then states that the risk of this would be "slight since the butterfly is not a strong flier and only tends to travel short distances."[142] Again, stating that increased rail traffic would "not likely adversely affect" the species would require informal consultation with the USFWS. The DEIS

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[140] DEIS, 4.11-8.

[141] *Id.*

[142] *Id.*, 4.11-9.

contains no information suggesting that formal or informal consultation has been initiated on this issue.

The DEIS states that Eastern prairie fringed orchid (a Federally-listed threatened species) has the potential to occur at the proposed Griffith Connection, and that SEA has determined that the construction of the connection will not likely adversely affect the species because of mitigation measures in Chapter 6.[143] If there is potential for the plant to be in this location, and a survey has not been completed yet, it is unreasonable to make a determination that the connection will not likely adversely affect the species. If the species is present, SEA would have to consult with the USFWS and enter formal or informal consultation depending on the effects determination that would be presented in a Biological Assessment. The DEIS contains no information suggesting that a survey has been performed or whether formal or informal consultation has been initiated on this issue.

With regard to the Karner blue butterfly (a Federally-listed endangered species), the DEIS again states that it has the potential to occur at the proposed Ivanhoe Connection, and that SEA has determined that the construction of the connection will not likely adversely affect the species because of mitigation measures in Chapter 6.[144] If a survey has not been completed yet, it is again unreasonable to make a determination that the connection will not likely adversely affect the species. If Karner blue butterfly habitat is present, SEA would have to consult with the USFWS and enter formal or informal consultation depending on the effects determination that would be presented in a Biological Assessment. Again, the DEIS contains no information

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[143] *Id.*, 4.11-17. According to the DEIS, a plant survey would be completed before construction begins. DEIS, 6-25.

[144] DEIS, 4.11-18.

suggesting that a survey has been performed or whether formal or informal consultation has been initiated on this issue.

C. By Not Studying CN's Likely Build-Out Of The EJ&E Line, The DEIS Failed To Properly Analyze An Important Indirect and Cumulative Effect Of The Proposed Transaction

SEA's three separate capacity analyses indicated that the EJ&E Line will be immediately at maximum capacity under the Operating Plan and upon completion of Applicants' proposed construction projects.[145] SEA's own data indicates that 37,500 rail cars currently travel through Chicago every day. That number is expected to increase to 67,000 per day by 2020, as "demand for freight rail service through Chicago is expected to nearly double."[146] The additional traffic will need to go somewhere. Yet the DEIS fails to consider the foreseeable – indeed almost certain – additional track construction that CN will undertake on the EJ&E Line to accommodate traffic growth.

According to Applicants, CN is "primarily ... seeking the acquisition and control authority to serve its existing rail traffic more efficiently" by routing traffic over the EJ&E.[147] SEA therefore was required to assess the impact of the diversion of traffic onto the EJ&E Line, and consequently the reasonableness of Applicants' proposed train volumes over the EJ&E Line.[148] In assessing the reasonableness of the train counts provided in the Operating Plan, SEA initially performed a "constraint" or "bottleneck" analysis, which is predicated on the concept

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[145] Applicants propose to construct approximately 19 miles of double-tracking on the main line, construct 6 new tracks totalling approximately 5 miles to connect the EJ&E Line to Applicants' existing lines and the lines of other railroads, and to install new signaling systems or modify current systems DEIS 4.1-11; 2-28.

[146] *See* DEIS 3.1-3.

[147] DEIS 2-21; 4.1-3.

[148] DEIS 4.1-5.

that the number of trains that can operate over the most constrained or bottlenecked portions of the EJ&E Line caps the effective number of trains that can operate on the remainder of the line.[149] SEA's bottleneck analysis of what it determined to be the most constrained portion of the EJ&E Line (an 11-mile segment between Walker and Joliet) indicated that, if approved, Applicants' Operating Plan would immediately "consume all or nearly all of the main line capacity at this bottleneck."[150]

SEA then performed two alternate traffic capacity analyses, a Line Occupancy Index ("LOI") assessment and a Rail Traffic Controller ("RTC") analysis. SEA's LOI determination, which assesses the ratio between theoretical maximum line capacity and actual train use, "confirmed SEA's findings in the bottleneck analysis ... that under the Proposed Action there would be several segments ... that would operate at or near capacity."[151] Indeed, although a LOI of 70% indicates "the rail segment has exceeded its practical capacity," SEA's analysis showed that at least four significant segments would have LOIs approaching the theoretical maximum of 100%.[152] SEA "therefore concluded that the Applicants' Operating Plan would consume nearly all of the main line capacity on the EJ&E rail line, after Applicants' constructions were completed."[153]

Similarly, the RTC analysis, which is based on an industry-standard dispatching model, indicated that "trains would experience major delays at several locations along the EJ&E rail

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[149] DEIS 2-22; 4.1-5.

[150] DEIS 4.1-26.

[151] DEIS 4.1-30.

[152] DEIS, Appendix B, Attachment B4, p. 14.

[153] *Id.*

line" and "the addition of more trains would serve only to increase those delays and further reduce the efficiency of the system."[154] The RTC analysis therefore further confirmed that under the Operating Plan "the EJ&E rail line would be operated at or very near to capacity, and that there is little, if any, room for growth in the anticipated daily train volumes."[155]

Thus, each of SEA's three separate capacity analyses indicated that the EJ&E Line will be immediately at maximum capacity under the Operating Plan and upon completion of Applicants' proposed constructions. The EJ&E Line will not be able to accommodate any further trains or future traffic growth without additional capacity improvements.

CN's traffic will grow. As noted above, between now and 2020, the "demand for freight rail service through Chicago is expected to nearly double."[156] As previously discussed, traffic through PPR to and from Memphis and the Midwest by way of Chicago continues to grow, and PPR's own representatives estimate the Port's capacity could be as high as 700,000-800,000 TEUs without the additional expansion Phases already planned for the facility. At least some of the new traffic will be routed over the EJ&E Line, and some will be forced back into Chicago due to the near or at-capacity use of the EJ&E Line.[157] Yet the DEIS fails to consider the

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[154] DEIS 4.1-33.

[155] DEIS 4.1-33. As elsewhere in the DEIS, SEA based its RTC analysis primarily on trains with a length of 6,321 feet. DEIS 4.1-33. The anticipated length of CN trains is actually 7,623 feet, but SEA also included in its averaging calculation certain shorter existing EJ&E trains with a length of 2,509 feet. DEIS, Appendix B, Attachment B4, p.3 Similar train lengths were used in the other capacity analyses. DEIS 4.1-28 (LOI analysis assumed average length of 6,321 feet, with six trains at 10,000 feet and remainder "commensurately shorter"). The addition of just a few 10,000 foot trains to the analysis resulted in a dramatic increase in anticipated delay ratios DEIS 4.1-33, Table 4.1-2 (Case No. #3).

[156] *See* DEIS 3.1-3.

[157] SEA analyzed the impacts of national rail traffic trends and growth on Chicago and the EJ&E Line. *See* DEIS 4.1-16, 17. SEA's conclusion that national growth trends would not affect the EJ&E system primarily because the traffic flows are of an "east-west" orientation while

foreseeable – indeed almost certain – additional track construction that CN will undertake on the EJ&E Line to accommodate traffic growth.

SEA needs to revise the DEIS with a full analysis of the environmental impact of CN's reasonably foreseeable capacity improvements on the EJ&E Line, including a full double-tracking of the entire line.

D. The DEIS Fails to Consider the Cumulative Impact of the Proposed Action as Combined with Other National and Regional Rail Transactions by CN and Others

It is important to again note that the Proposed Action does not exist in a vacuum. Over the past decade, CN has engaged in a series of rail transactions that have combined to greatly consolidate and strengthen its regional, national, and international infrastructure. The Proposed Action is merely another step in CN's overarching strategic growth plan, and the cumulative impacts of the Proposed Action when combined with CN's other transactions must also be considered.

Specifically, in 1998 Canadian National purchased the Illinois Central Railroad, a Class II railroad, and connected its existing lines across all of Canada with a line from Chicago to New Orleans. In 2001, CN purchased the Wisconsin Central Railroad, another significant regional Class II carrier, which gave CN a network of rail lines encircling Lake Superior, Lake Michigan and Lake Huron and enhancing CN's connections between Chicago and Western Canada. In 2004, CN acquired Great Lakes Transportation, the owner of two more regional Class II carriers,

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the EJ&E is primarily situated for north-south transportation vastly oversimplifies the issues. *Id.* Without considering the fact that the EJ&E Line will be already operating at maximum capacity, SEA cannot have accurately considered the impacts increased national rail traffic will have on Chicago and the EJ&E arc. The EJ&E will not be able to handle <u>any</u> overflow traffic or re-routings without additional construction work. This guarantees that any increase in east-west or other traffic will have no alternative but to move through downtown Chicago, including some of the five subdivisions CN instead claims would see <u>increased</u> capacity as a result of the Proposed Action.

the Bessemer & Lake Erie Railroad, the Duluth, Missabe and Iron Range Railway, as well as the Pittsburgh Conneaut Dock Company. This transaction, among other things, allowed CN to close an ownership gap in Duluth, Minnesota and further enhance its Western Canada to Chicago routings. The Surface Transportation Board did not prepare an environmental impact statement in connection with any of the above-listed transactions. The Board has not evaluated the cumulative effect of these transactions since SEA prepared an EA in 1999 as part of CN's acquisition of the Illinois Central Railroad.[158]

In addition, SEA must examine the effects of the proposed acquisition of the Dakota, Minnesota & Eastern Railroad Corporation ("DM&E") and the Iowa, Chicago & Eastern Railroad Corporation ("IC&E") by Canadian Pacific Railway Corporation ("CP"). DM&E's construction into the Powder River Basin is more than foreseeable – it is a virtual certainty. It is imperative that the Board now consider the cumulative effect of the prior CN transactions listed above and of the movement of DM&E PRB coal traffic over the IC&E and/or CP lines in connection with the Proposed Action.[159]

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[158] *See Canadian National Railway Company, Grand Trunk Corporation, and Grand Trunk Western Railroad Incorporated – Control – Illinois Central Corporation, Illinois Central Railroad Company, Chicago, Central and Pacific Railroad Company, and Cedar River Railroad Company*, STB Finance Docket No. 33556 (STB served May 21, 1999) (Decision No. 37).

[159] *See* 40 C F.R § 1508.7 (requiring an environmental impact statement to consider "incremental impact of the action when added to other past...actions"); *Habitat Educ Center v. Bosworth*, 363 F.Supp.2d 1090, 1098 (E D. Wis. 2005) (invalidating an EIS where the EIS failed to include any evidence that the agency had considered five other approved timber projects in the area), *Idaho Conserv. League v. Bennett*, 2005 WL 1041396 at *5 (D. Idaho 2005) (invalidating an environmental assessment because of the "failure...to discuss in sufficient detail the connection between prior activities and the current project, which is critical to understanding what alternatives may produce the least environmental harm while still meeting project goals"); Council on Environmental Quality, Considering Cumulative Effects at 8, available at http://www.nepa.gov/nepa/ccenepa/sec1.pdf ("Repeated actions may cause effects to build up through simple addition .and the same or different actions may

CONCLUSION

Based on the foregoing, Barrington respectfully submits that the only reasonable option available to SEA in this case is to recommend the No-Action Alternative. It is clear that the Proposed Action has virtually no public benefits, will produce significant environmental harms, and that CN could achieve many of its objectives (which benefit CN only) by adjusting the way that it operates trains in and through Chicago. It is also clear that it would be impossible to adequately mitigate the adverse impacts of the Proposed Action.

If SEA does anything other than recommend the No-Action Alternative, then it must revise and recirculate the DEIS because: (1) SEA failed to independently scrutinize and define the Purpose and Need, failed to identify, rigorously explore, and objectively evaluate all reasonable alternatives; (2) the environmental mitigation is grossly inadequate and not described with sufficient detail to allow affected communities and individuals to assess the impact of the Proposed Action; (3) the DEIS analysis of safety, transportation, environmental justice, energy, air quality and climate, noise and vibration and biological resource impacts is so individually and collectively flawed that it precludes meaningful analysis; and (4) the DEIS fails to analyze the indirect and cumulative effect of the Proposed Action

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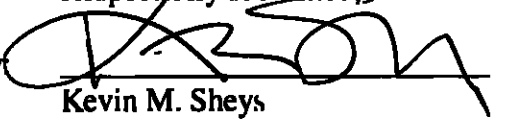
produce effects that interact to produce cumulative effects greater than the sum of the effects").

Respectfully submitted,

By 

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Dated: September 30, 2008

CERTIFICATE OF SERVICE

I hereby certify that on September 30, 2008, I caused the foregoing **Village of Barrington's Comments to the Draft Environmental Impact Statement** to be served via first class mail, postage prepaid, or by a more expeditious method of delivery on all parties of record and on the following:

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